気 象 庁 海 洋 月 報

Monthly Ocean Report

September 1996 (No. 45)

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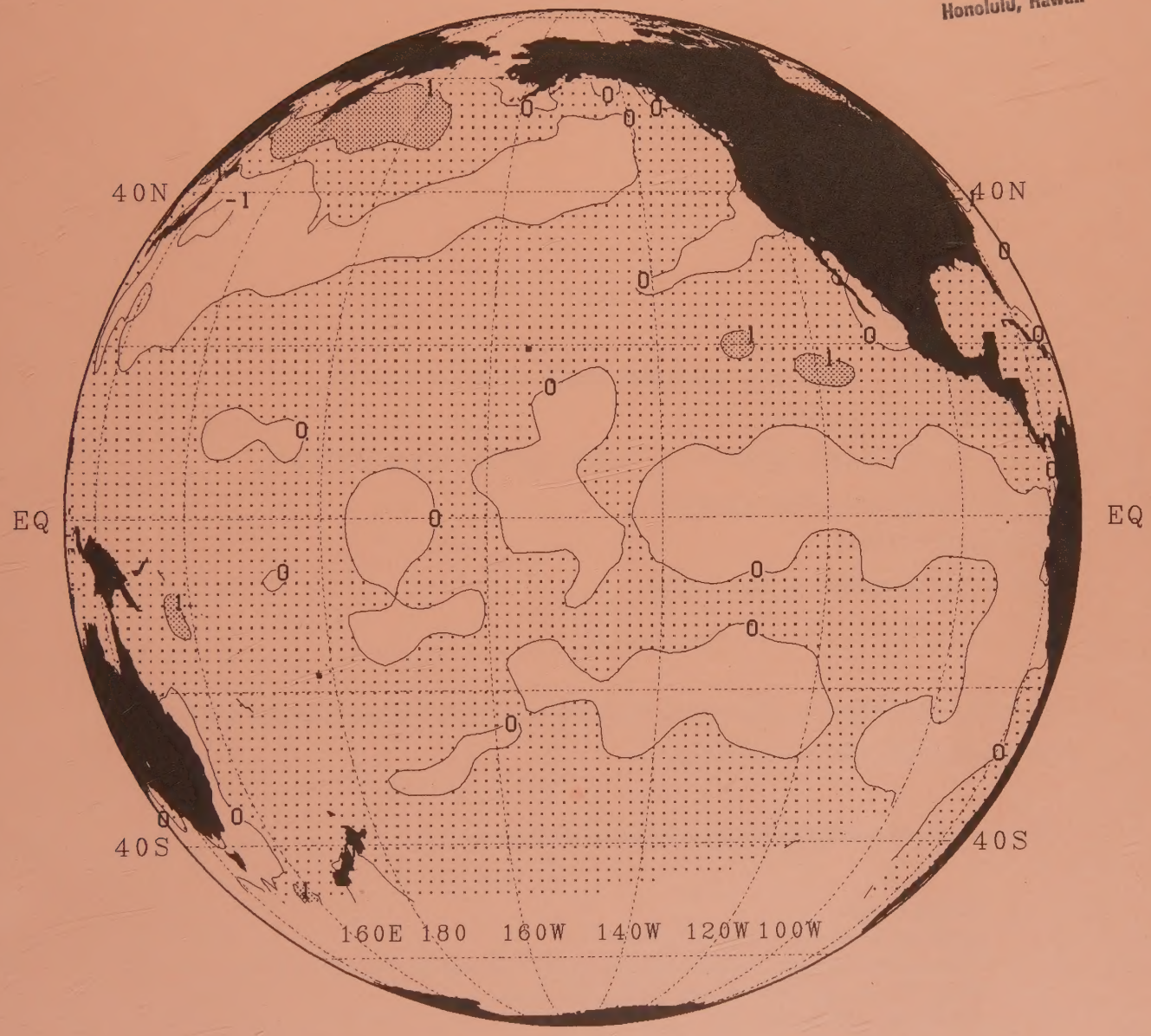

Climate and Marine Department
Japan Meteorological Agency

気 象 庁 気 候 ・ 海 洋 気 象 部

平 成 8 年 9 月

気象庁海洋月報は、気象庁 気候・海洋気象部 海洋課で作成されています。
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表紙は、1996年９月の太平洋の月平均海面水温偏差図です。
陰影部は、平年より高温の海域を示しています。

The figure on the front cover shows the monthly mean SST anomalies for September 1996 in the Pacific Ocean.
Areas of positive anomalies are shaded.

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海況の特徴（１９９６年９月）

太平洋の海況

太平洋赤道域の海面水温は、日付変更線以東で概ね弱い負偏差であり、エルニーニョ監視海域（4°S～4°N、150°W～90°W）の海面水温偏差は、-0.3℃だった。一方、西部熱帯域では、フィリピン、カリマンタン島からバヌアツにかけての広い範囲にわたって、平年より0.5℃以上高い海域が広がっていた。D海域の海面水温偏差は、+0.6℃であり、1995年８月以降、+0.5℃前後の正偏差が依然として継続している（本月報第44号参照）（第１表、第１図、第６図）。

太平洋の赤道に沿った表層水温断面図によれば、西部の水温躍層付近では、前月に引き続き正編差が見られ、一方、東部の120°W以東の海面から深さ100ｍにかけては1℃を越える負偏差が見られた（第９図）。

35～45°Nの日本付近から東に伸びる負偏差域は140°Wに達し、前月より東に広がった。一方、45°N以北、ハワイ付近及び北米大陸西岸の20°N付近では、平年より0.5℃以上高かった（第６図）。

日本近海の海況

海面水温は、東海から北海道にかけての太平洋岸では平年より低く、特に、北海道の南と関東東方沖では１℃以上低かった。日本海はほぼ全域で正偏差となり、特に北部で1℃以上高かった（第24図）。

黒潮は、九州から紀伊半島にかけて接岸して流れた後、東に向かい、八丈島の北を経て、ほぼ34°Nに沿って東に流れていた（第27図）。

本州東方の親潮系の冷水は、沿岸寄りの分枝は40.8°N,143.0°Eまで、沖合の分枝は39.8°N,147.5°Eまで、それぞれ達していた（第26図）。

熱帯の気象

対流活動は北半球側のインド洋東部から太平洋西部で平年より活発である一方、太平洋中部赤道域とメキシコ湾では不活発であった。太平洋上の熱帯収束帯（ITCZ）は、平年よりやや北に偏っていた。850hPaでの太平洋赤道域上空の風は、140°E～130°Wの太平洋西部及び中部で東風偏差が卓越し、太平洋西部の東西風指数（U850-WP）は、12か月間連続で-1.0を下回った。一方、太平洋東部では西風偏差が見られた。南方振動指数（SOI）の９月の値は+0.5で、SOIは１月から正の値を維持している。太平洋西部では8月末に対流活動を活発化させる季節内変動の位相が通過して以来、対流活動の活発な状態が続いた（第１表、第3～5図、第12図）。

HIGHLIGHTS September 1996

Pacific

In the equatorial Pacific, sea surface temperatures (SSTs) were slightly below normal east of the dateline. The SST index for region B (Fig. 1) was -0.3°C. In the tropical western Pacific, positive SST anomalies more than 0.5°C prevailed in the western North Pacific. The SST index for region D (Fig. 1) was +0.6°C , and high SST anomalies around +0.5°C have continued in the western tropical Pacific since August 1995(See, No.44 of this Report) (Table 1, Figs. 1 and 6).

Positive subsurface temperature anomalies continued to be found along the thermocline in the western equatorial Pacific, while negative anomalies lower than -1°C were observed from the surface to a depth of 100m east of 120°W (Fig. 9).

The region of negative SST anomalies between 35°N and 45°N extending eastward from near Japan expanded to 140°W during September. Positive SST anomalies more than 0.5°C were observed around the Hawaii islands, along 20°N off the west coast of North America and north of 45°N (Fig. 6).

Seas adjacent to Japan

SSTs were below normal along the east coast of Japan from Tokai to Hokkaido. In particular, negative SST anomalies lower than -1°C were observed off the south coast of Hokkaido and east of Kanto. Positive SST anomalies prevailed in the Japan Sea, especially in its northern part where SST was more than 1°C above normal (Fig. 24).

The Kuroshio flowed along the coast of Kyushu and Shikoku, then eastward from the Kii Peninsula. After passing north of Hachijo Island, it flowed eastward along 34°N (Fig. 27).

Coastal and off coastal branches of the Oyashio cold water extended southward to 40.8°N, 143.0°E, and 39.8°N, 147.5°E, respectively (Fig. 26).

Atmospheric conditions in the tropics

Convective activities were above normal over the region from the eastern Indian Ocean to the western Pacific, while below normal over the central equatorial Pacific and the Gulf of Mexico. ITCZ in the Pacific shifted slightly northward from the normal position. As for the equatorial wind at 850hPa, easterly anomalies were dominant over the western and central Pacific from 140°E to 130°W and the equatorial zonal wind index (U850-WP) has kept below -1.0 for 12 consecutive months. On the other hand, westerly anomalies were observed over the tropical eastern Pacific. The SOI (+0.5) has continued to be positive since January 1996. Convective activities over the western Pacific have been above normal since the end of August when an active phase of the intra-seasonal oscillation passed there (Table 1, Figs. 3-5, and 12).

「ファックス放送（JMH）」による海洋情報

気象庁では、本海洋月報を発行して、海面水温、表層水温、海流等の情報を提供しているが、海上の船舶向けには、以下のように「気象庁第１気象無線模写通報（JMH）」により、旬（10日）単位の最新の海洋情報を放送している。

海洋情報の名称	対象海域	冒頭符	放送日
北西太平洋旬平均海面水温図・同偏差図	北西太平洋 0°～60°N, 100°E～180°	ＣＯＰＱ１ ＣＯＰＱ２	2、12、22日
太平洋旬平均海面水温・同偏差図	太平洋 70°S～70°N, 90°E～60°W 偏差図は40°S～70°N	ＣＯＰＡ	4、14、24日
北西太平洋海流図	北西太平洋 0°～60°N, 100°E～180°	ＳＯＰＱ	6、16、26日 再放送　10、20、30日 （２月下旬は、３月１日）
北西太平洋表層（100mの深さ）水温図	北西太平洋 18°～51°N, 120°E～180°	ＳＯＰＮ	7、17、27日
北西太平洋旬平均海面水温・海流予想図 北西太平洋旬平均海面水温偏差予想図（予報文付）	北西太平洋 0°～53°N, 115°E～180°	ＦＯＰＮ１ ＦＯＰＮ２	9、19、29日 平年の２月下旬は２月28日

受信可能範囲：(90°N, 40°E)-(10°S, 40°E)-(10°S, 130°W)-(90°N, 130°W)
ファックス放送のコールサイン：ＪＭＨ（気象庁第１気象無線模写通報）
放送周波数及び空中線電力：3622.5kHz, 7305kHz, 9970kHz, 13597kHz, 18220kHz, 23522.9kHz, 各5kW
電波の型式：Ｆ３Ｃ　　変調方式：周波数偏移方式（白+400kHz、黒-400kHz）　　ドラム回転数：120rpm　　協動係数：576
放送時間：20時11分から20時30分（日本時間）
ただし、ＣＯＰＱ１、ＣＯＰＱ２、及び、ＦＯＰＮ１、ＦＯＰＮ２は20時11分から20時47分まで続けて放送

Oceanographic products on the meteorological radio facsimile (JMH)

JMA makes the following oceanographic information available through broadcasts of the meteorological radio facsimile (JMH) for use on ship at sea.

Broadcast Schedule of Oceanographic Products on JMH

Name of Product	Area of Product	Chart Identification	Transmission Date
Analysis of ten-day mean sea surface temperature(SST) and anomaly	western North Pacific 0°-60°N, 100°E-180°	ＣＯＰＱ１ ＣＯＰＱ２	2nd, 12th, 22nd
Analysis of ten-day mean SST Analysis of ten-day mean anomaly of SST	Pacific Ocean 70°S-70°N, 90°E-60°W 40°S-70°N, 90°E-60°W	ＣＯＰＡ	4th, 14th, 24th
Analysis of sea surface currents	western North Pacific 0°-60°N, 100°E-180°	ＳＯＰＱ	6th, 16th, 26th rebroadcast 10th, 20th, 30th / March 1st
Analysis of subsurface temperature at 100m depth	western North Pacific 18°N-51°N, 120°E-180°	ＳＯＰＮ	7th, 17th, 27th
Prognosis of ten-day mean SST and sea surface currents Prognosis of ten-day mean anomaly of SST	western North Pacific 0°-53°N, 115°E-180°	ＦＯＰＮ１ ＦＯＰＮ２	9th, 19th, 29th / Feb. 28th

Name of the center: TOKYO
Specific area in which the broadcast is intended to be received : (90°N, 40°E)-(10°S, 40°E)-(10°S, 130°W)-(90°N, 130°W)
Call sign: JMH　　Frequency: 3622.5kHz, 7305kHz, 9970kHz, 13597kHz, 18220kHz, 23522.9kHz　　Power of transmission : 5kW
Type of transmission : F3C (white +400Hz, black -400Hz)　　Drum speed: 120 rpm　　Index of cooperation : 576
Transmission time in UTC: 1111-1147 (COPN1, COPN2, FOPN1, FOPN2), 1111-1130 (others)

DATE	SEA SURFACE TEMPERATURE AND ANOMALY (°C)								SEA LEVEL ANOMALY (cm)					
	Region D 14N-Eq. 130E-150E		Region A 4N-4S 160E-150W		Region B 4N-4S 150W-90W		Region C Eq.-10S 90W-80W		Yap 10N,138E	Rabaul 4S,152E	Majuro 7N,171E	Tarawa 1N,173E	Christ-mas 2N,157W	Santa Cruz 1S, 90W
OCT 95	29.8	+0.5	28.0	-0.4	23.9	-0.7	20.4	-0.3	12.1	14.2	4.5	1.1	-4.4	-3.8
NOV 95	29.7	+0.5	27.9	-0.5	23.9	-0.7	21.5	0.0	14.6	13.1	10.9	-1.4	-8.2	-2.1
DEC 95	29.5	+0.6	28.0	-0.2	24.2	-0.7	21.9	-0.7	12.1	16.2	3.4	1.0	-6.2	-4.8
JAN 96	29.0	+0.5	27.9	-0.1	25.0	-0.4	24.1	-0.2	9.2	13.7	7.9	5.5	-2.7	-3.0
FEB 96	28.6	+0.3	27.6	-0.4	25.7	-0.5	26.0	+0.3	9.7	14.0	5.9	4.2	-3.1	6.1
MAR 96	28.8	+0.4	27.8	-0.3	26.7	-0.2	25.9	0.0	8.2	11.8	-3.7	6.1	0.3	1.0
APR 96	29.3	+0.5	28.1	-0.1	26.7	-0.4	24.1	-1.0	-4.4	12.9	5.0	2.6	-2.8	-4.4
MAY 96	29.6	+0.5	28.5	0.0	26.2	-0.4	22.9	-1.0	-8.8	14.2	7.8	7.9	-0.7	-3.7
JUN 96	29.7	+0.4	28.6	0.1	25.7	-0.4	21.5	-1.2	2.5	10.1	4.4	5.1	-0.6	-5.1
JUL 96	29.8	+0.6	28.4	-0.1	25.1	-0.1	20.4	-1.2	12.3	12.9	3.8	1.2	-3.7	-0.2
AUG 96	29.6	+0.5	28.4	0.0	24.3	-0.3	20.5	-0.1	10.5	16.0	8.4	1.5	-1.4	-2.1
SEP 96	29.8	+0.6	28.4	+0.1	24.3	-0.3	19.8	-0.5						

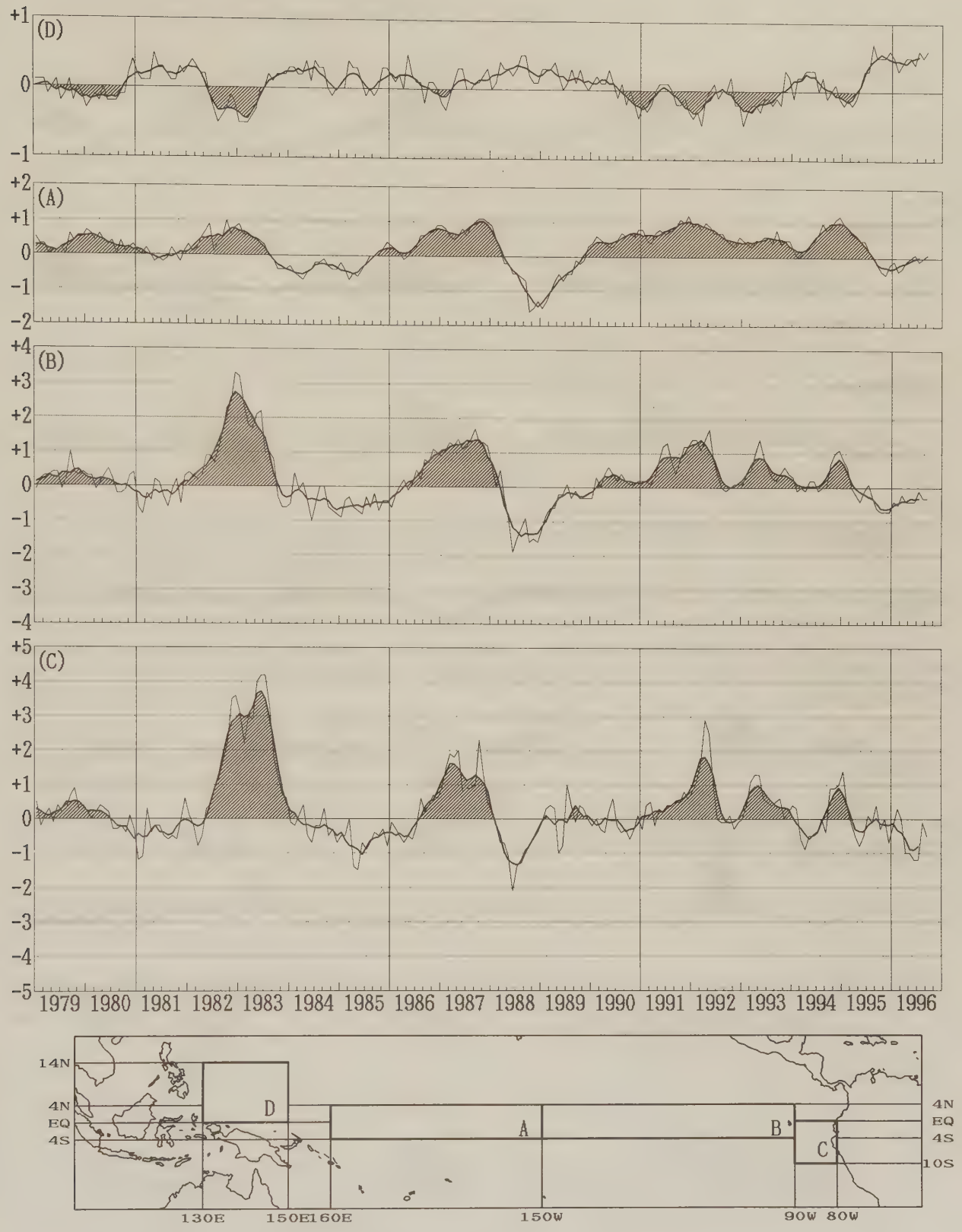
第１表（ａ）　エルニーニョ監視指数

Table 1 (a)　El Niño monitoring indices. Data sources are the SOC for ISLP-Pac, Department of Oceanography, University of Hawaii for the sea level anomaly. All the data of sea level anomaly has been revised.

DATE	SOI	SEA LEVEL PRESSURE ANOMALIES		HIGH CLOUD AMOUNT INDEX			EQUATORIAL ZONAL WIND INDEX				
		TAHITI 17°33'S, 149°37'W	DARWIN 12°24'S, 130°52'E	HCLD-PH 20N-10N 110E-140E	HCLD-MC 5N-5S 110E-135E	HCLD-DL 5N-5S 170E-170W	U200-IN 5N-5S 80E-100E	U200-CP 5N-5S 180 -125W	U850-WP 5N-5S 160E-175W	U850-CP 5N-5S 170W-135W	U850-EP 5N-5S 130W-100W
OCT 95	-0.3	-0.7	-0.5	0.1	0.2	-1.0	-0.7	0.6	-1.2	-0.7	0.1
NOV 95	0.1	0.1	-0.1	0.1	1.4	-1.2	-2.1	0.8	-1.1	-0.8	-0.8
DEC 95	-0.5	-0.9	0.0	4.0	1.2	-1.2	-0.3	-0.1	-1.0	-0.3	0.3
JAN 96	0.8	1.0	-0.7	1.6	1.5	-1.3	-1.0	0.8	-1.2	-1.2	0.0
FEB 96	0.1	-0.3	-0.5	1.7	1.4	-1.1	-0.7	0.4	-1.1	-1.4	-0.6
MAR 96	0.7	1.0	-0.3	0.3	-0.4	-1.2	-0.2	0.0	-1.1	-1.5	-0.3
APR 96	0.8	0.5	-0.5	2.4	0.6	-0.7	-1.3	1.1	-1.6	-1.1	-0.5
MAY 96	0.3	1.2	1.2	0.6	0.0	-0.6	-1.3	0.8	-1.0	-1.3	0.3
JUN 96	1.4	1.6	-0.2	-1.4	0.4	-0.6	0.8	1.0	-1.4	-2.0	0.5
JUL 96	0.7	0.6	-0.6	0.8	0.1	-0.7	-0.3	1.3	-1.4	-2.1	-0.1
AUG 96	0.4	0.4	-0.3	-1.6	1.0	-0.9	0.9	0.8	-1.3	-1.1	0.3
SEP 96	0.5	-0.7	-1.7	1.7	0.3	-0.9	-2.3	1.2	-1.3	-1.9	0.5

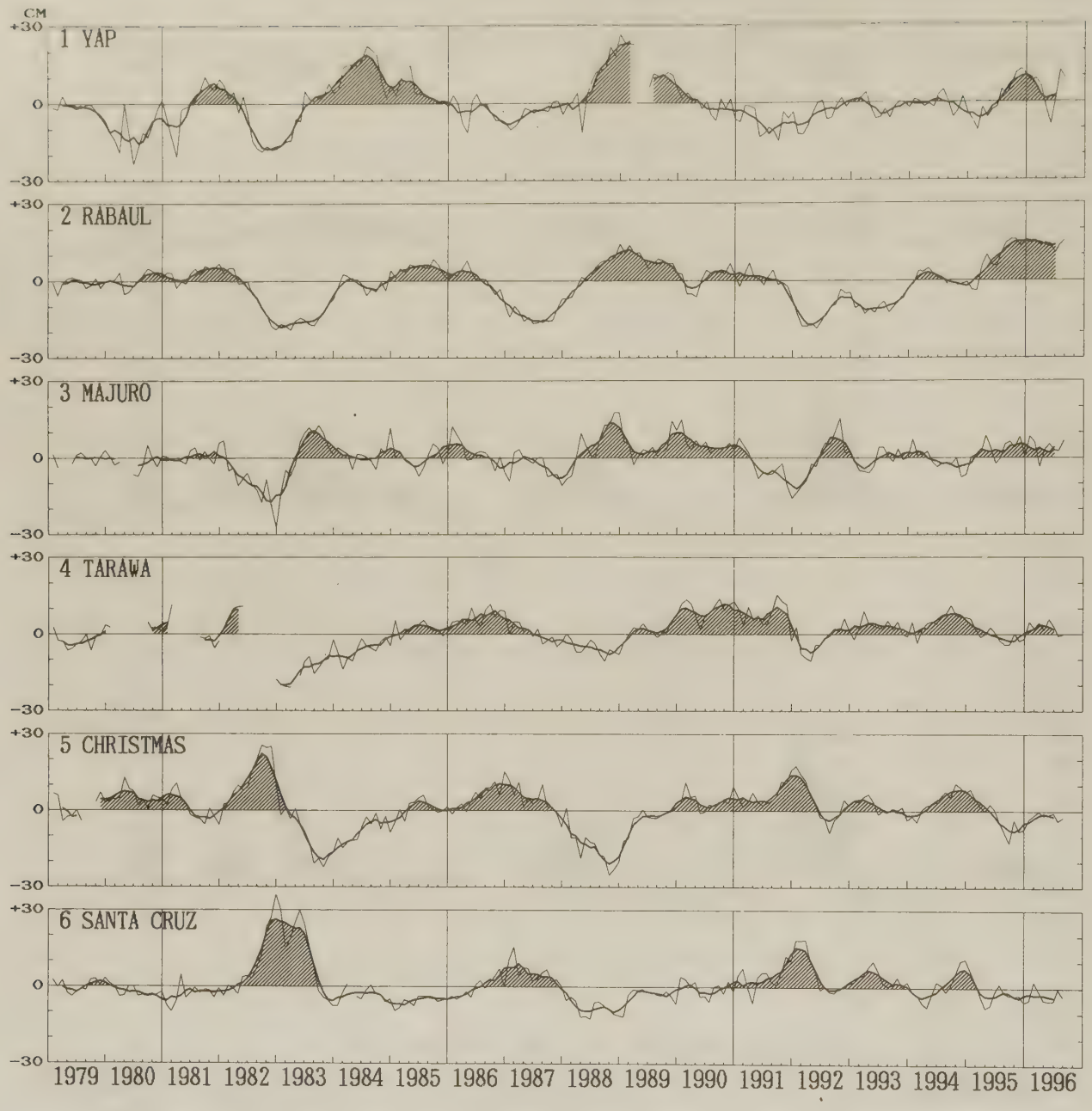
第１表（ｂ）　エルニーニョ監視指数（続き）

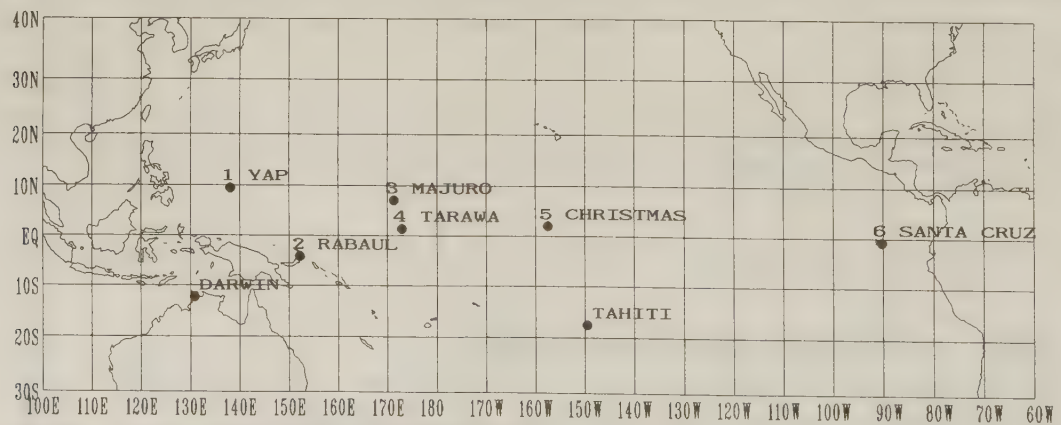
Table 1 (b)　El Niño monitoring indices (continued).



第1図　太平洋赤道域の海面水温偏差時系列図

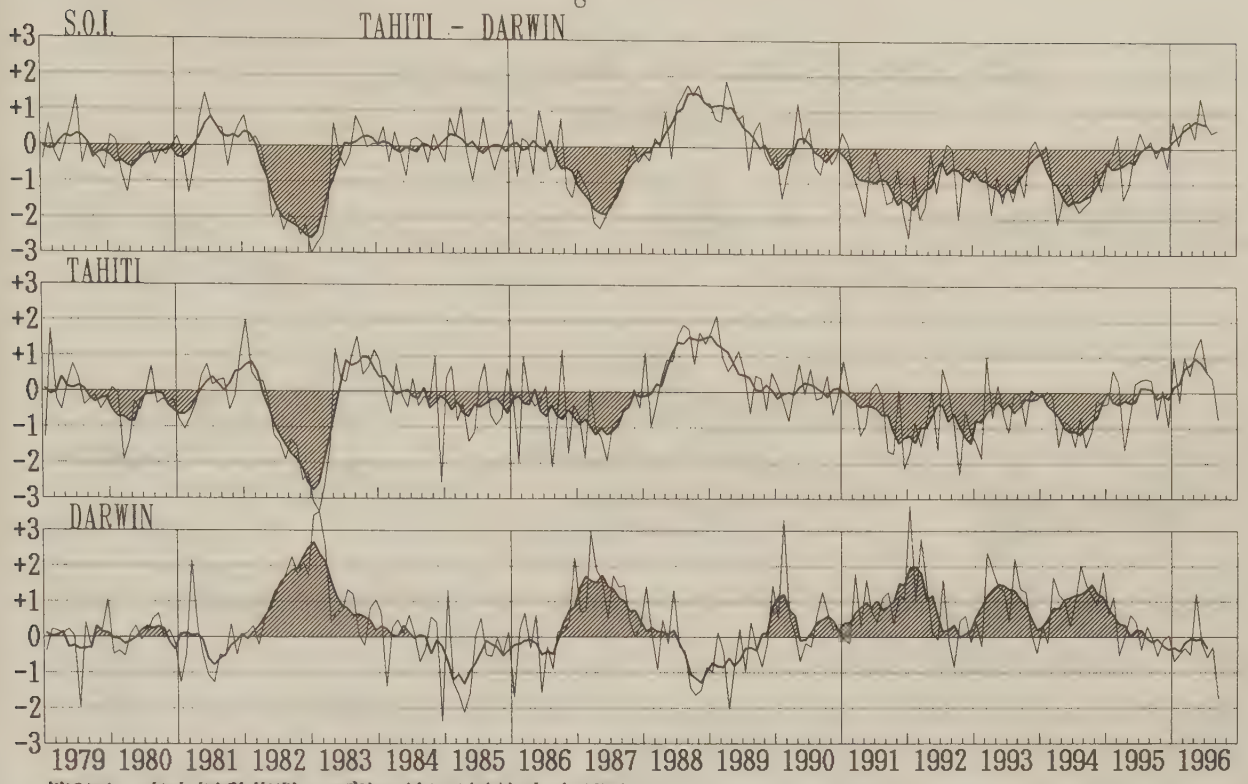
Fig.1 Time series of monthly mean SST anomalies (°C) in the equatorial Pacific Ocean for the areas indicated at the bottom. Thin lines show the monthly means and thick lines their 5-month running means. Positive anomalies (A, B, C) and negative anomalies (D) are shaded. Anomalies are computed from the JMA climatology (1961-1990).





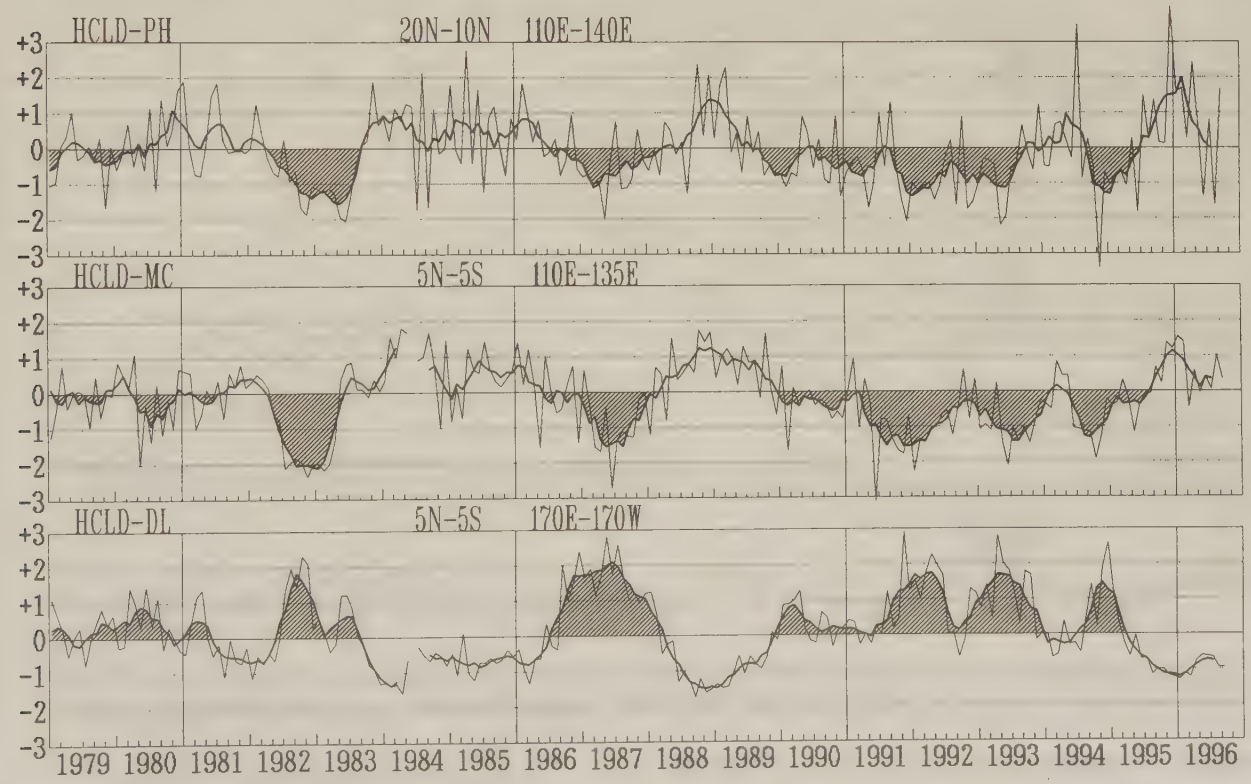
第2図　太平洋月平均海面水位偏差時系列図

Fig.2 Time series of sea level anomalies computed from 1976-1990 monthly mean values obtained from the stations indicated at the bottom. Thin lines show the monthly mean and thick lines their 5-month running means. Positive anomalies are shaded.



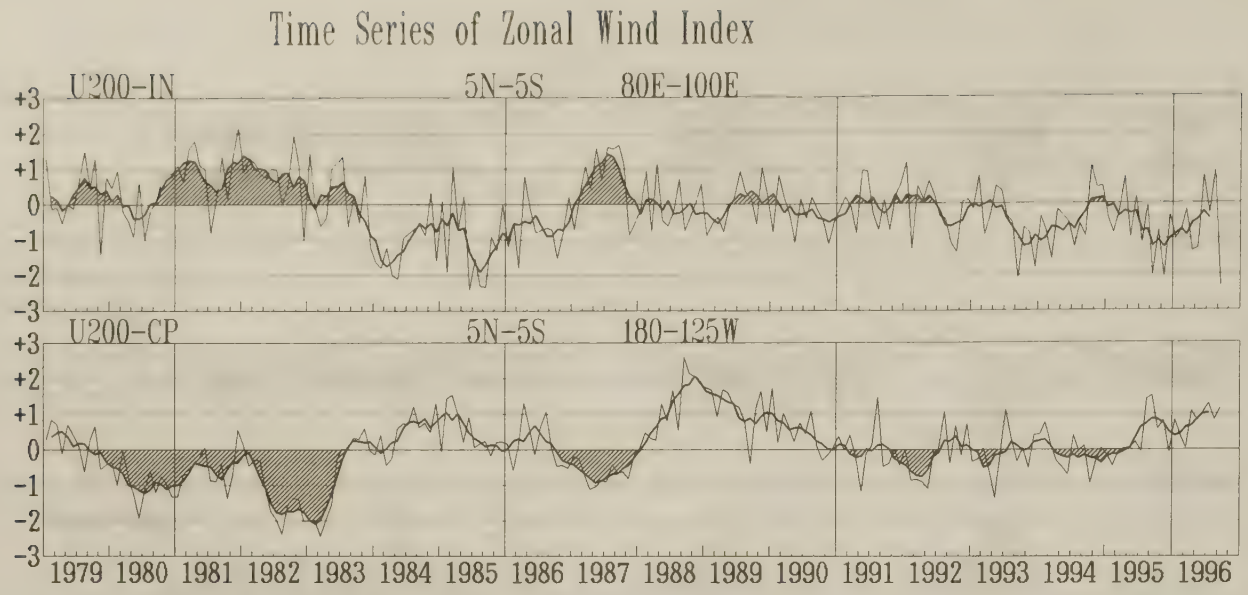
第3図　南方振動指数及び海面気圧偏差時系列図

Fig.3 Time series of the Southern Oscillation Index (top) and monthly mean sea level pressure standardized anomalies at Tahiti (middle) and Darwin (bottom). Thin lines show the monthly mean and thick lines their 5-month running means. Negative anomalies (top, middle) and posotive anomalies (bottom) are shaded. Normals and standard deviations are computed from 1961-1990 base periods.



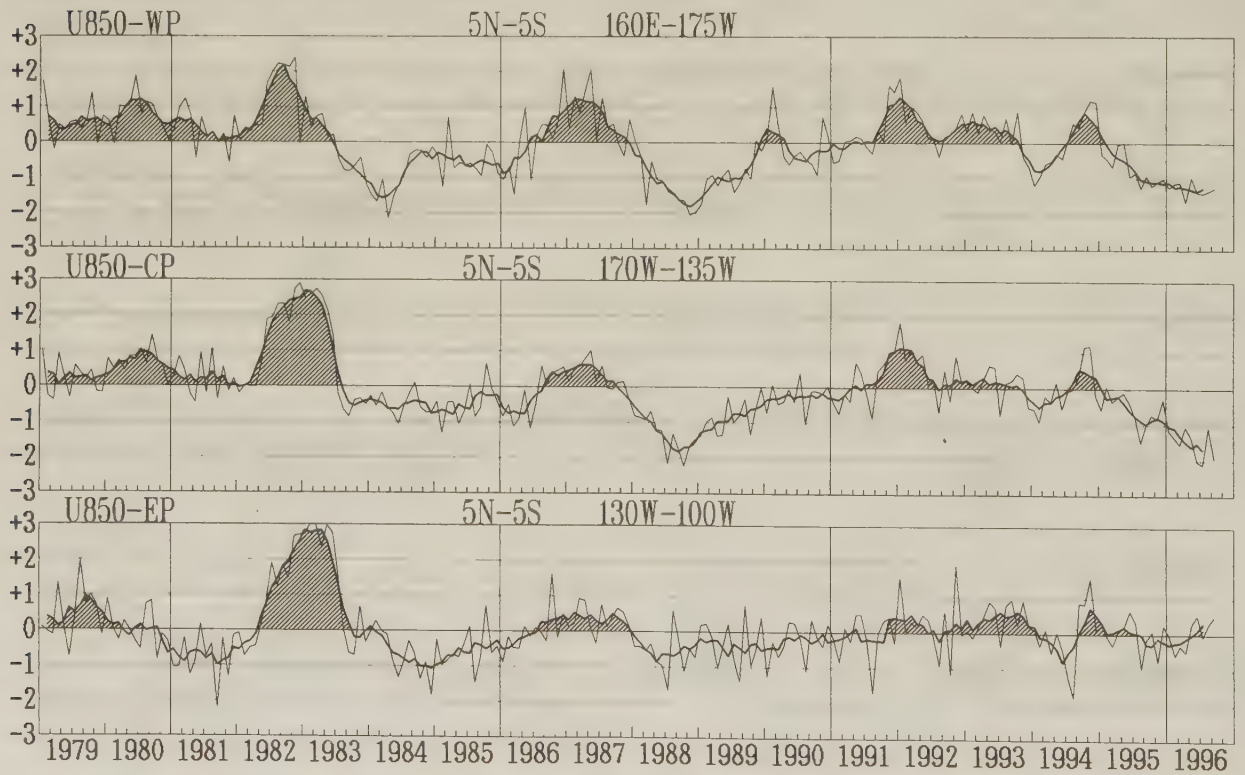
第4図　月平均上層雲量指数時系列図

Fig.4 Time series of high-cloud amount index averaged over the area 20°N-10°N, 110°E-140°E (top), 5°N-5°S, 110°E-135°E (middle), and 5°N-5°S, 170°E-170°W (bottom). Thin lines show the monthly mean and thick lines their 5-month running means. Negative anomalies (top, middle) and positive anomalies (bottom) are shaded. Normals and standard deviations are computed from 1978-1990 base periods.



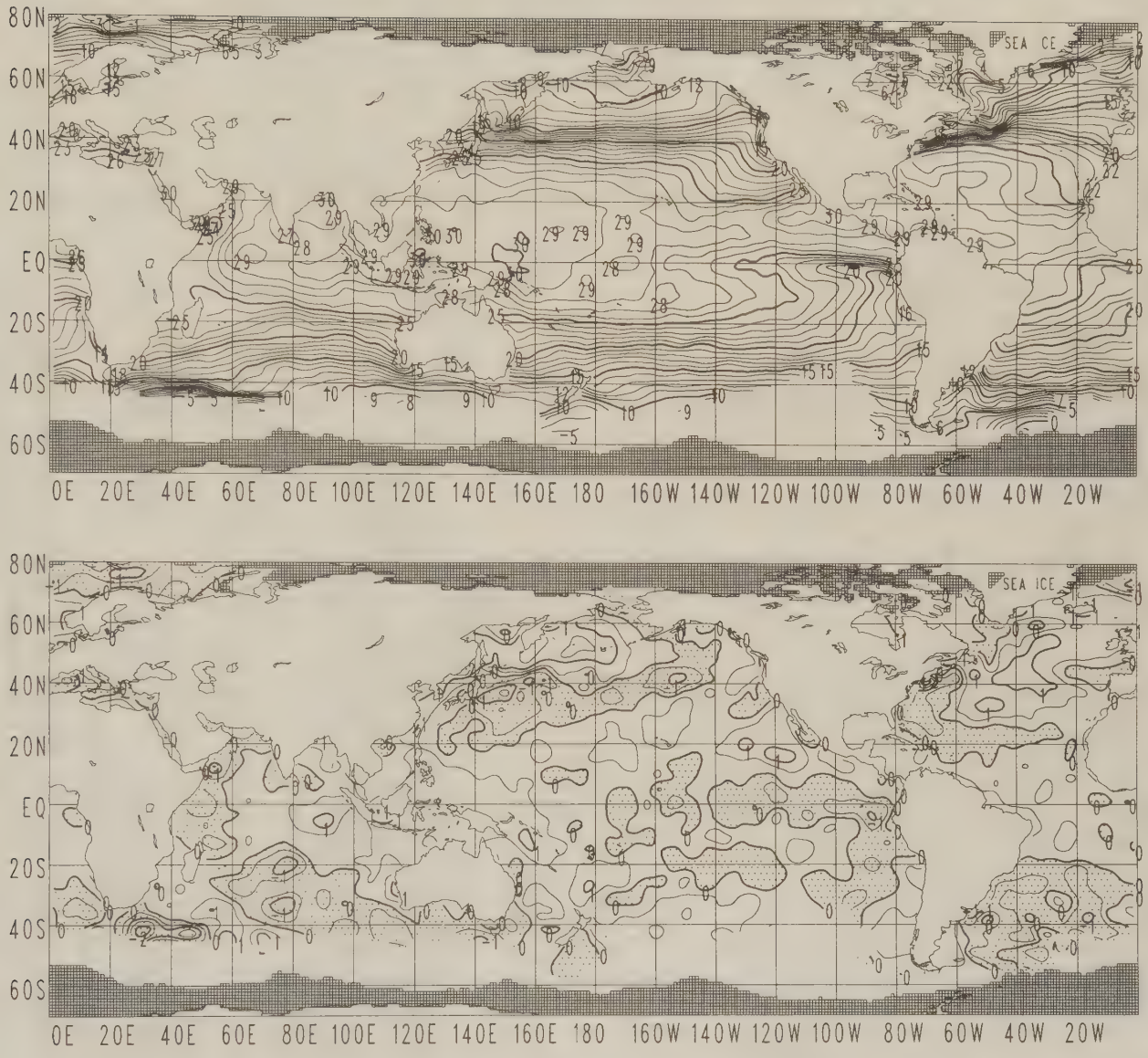
第5図-1　赤道域東西風指数(200ｈＰａ)時系列図

Fig.5-1 Time series of 200hPa zonal wind index averaged over the areas of 5°N-5°S, 80°E-100°E (top), and 5°N-5°S, 180°-125°W (bottom). Thin lines show the monthly mean and thick lines their 5-month running means. Positive anomalies (top) and negative anomalies (bottom) are shaded. Normals and standard deviations are computed from 1979-1990 base periods.



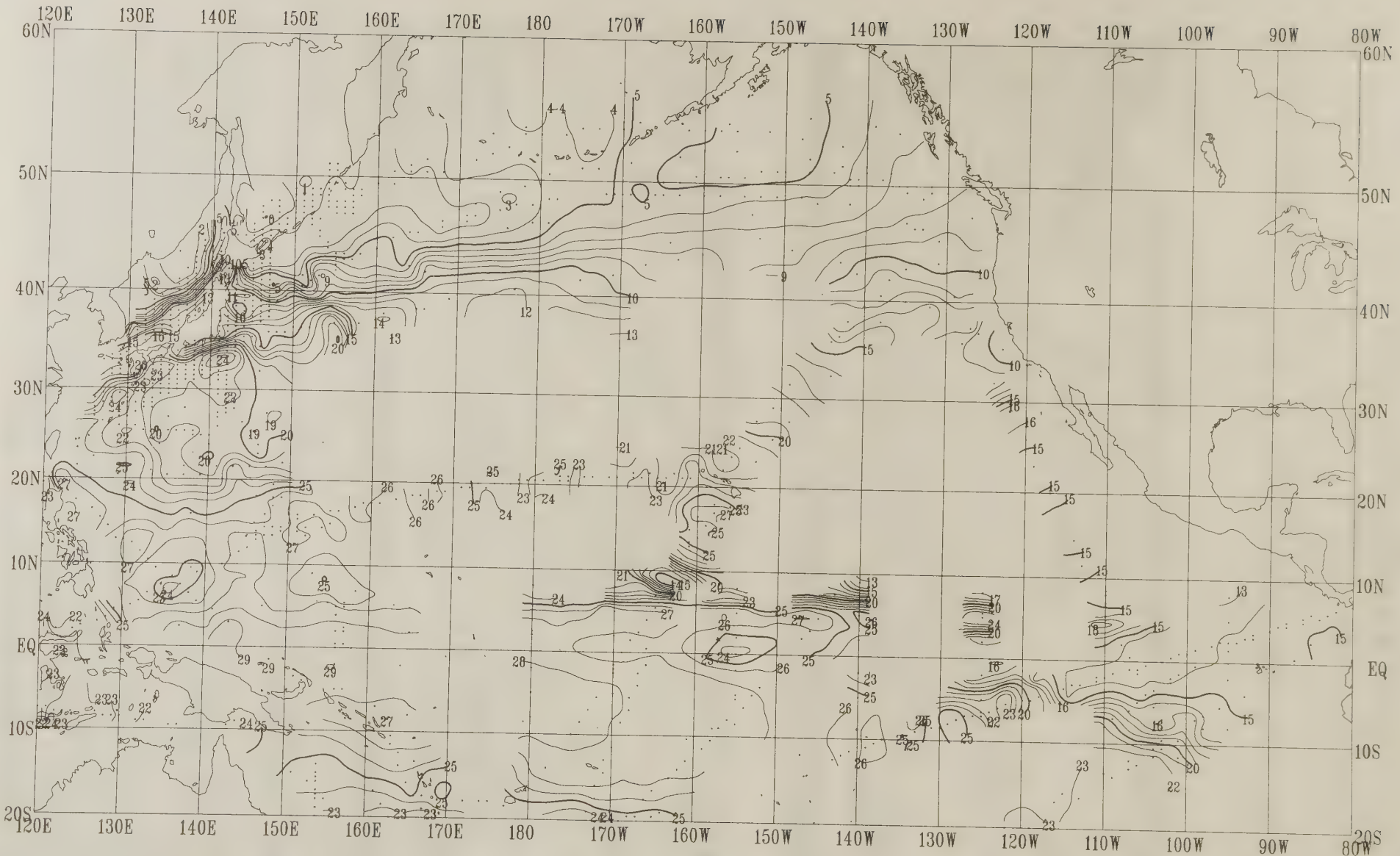
第5図-2　赤道域東西風指数(850ｈＰａ)時系列図

Fig.5-2 Time series of 850hPa zonal wind index averaged over the areas of 5°N-5°S, 160°E-175°W (top), 5°N-5°S, 170°W-135°W (middle), and 5°N-5°S, 130°W-100°W (bottom). Thin lines show the monthly mean and thick lines their 5-month running means. Positive anomalies are shaded. Normals and standard deviations are computed from 1979-1990 base periods.



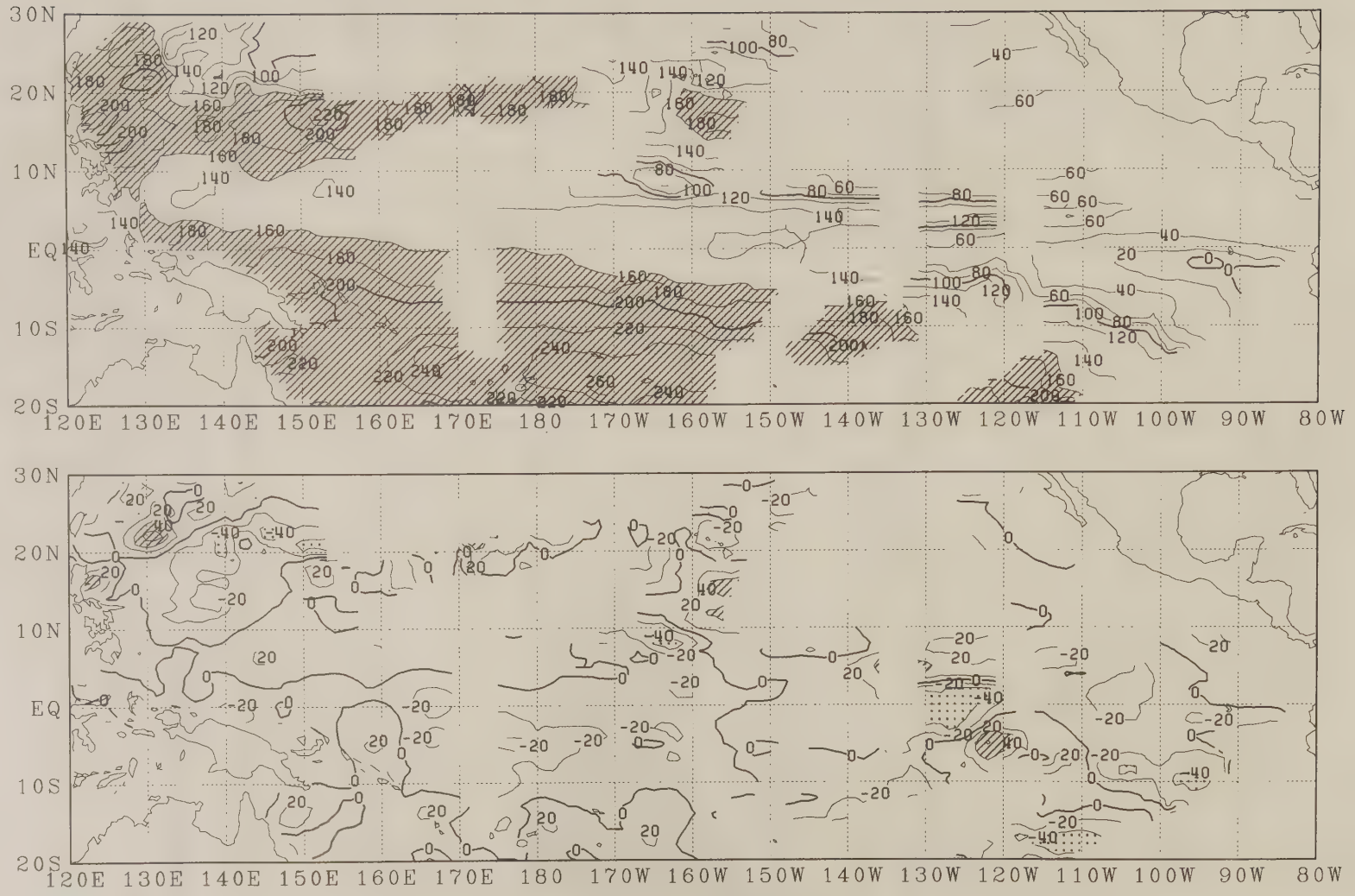
第6図　全球月平均海面水温図（上）及び偏差図（下）（1996年 9月）

Fig.6 Monthly mean sea surface temperature over the global ocean (top) and anomalies (bottom) for SEP 1996. Anomalies are computed from the JMA climatology (1961-1990) (Marine Department of JMA, 1991, Climatic charts of sea surface temperatures of the western North Pacific and the global ocean). Contour interval is 1°C (top) and additional anomaly contours of ±0.5°C are shown as thin lines. Negative anomalies are spotted. Maximum coverage of sea ice is shaded. Data sources for sea ice are U.S. National Ice Center (polar regions) and JMA (the Sea of Okhotsk).



第7図　太平洋表層水温(深さ100m)図 (1996年 9月)

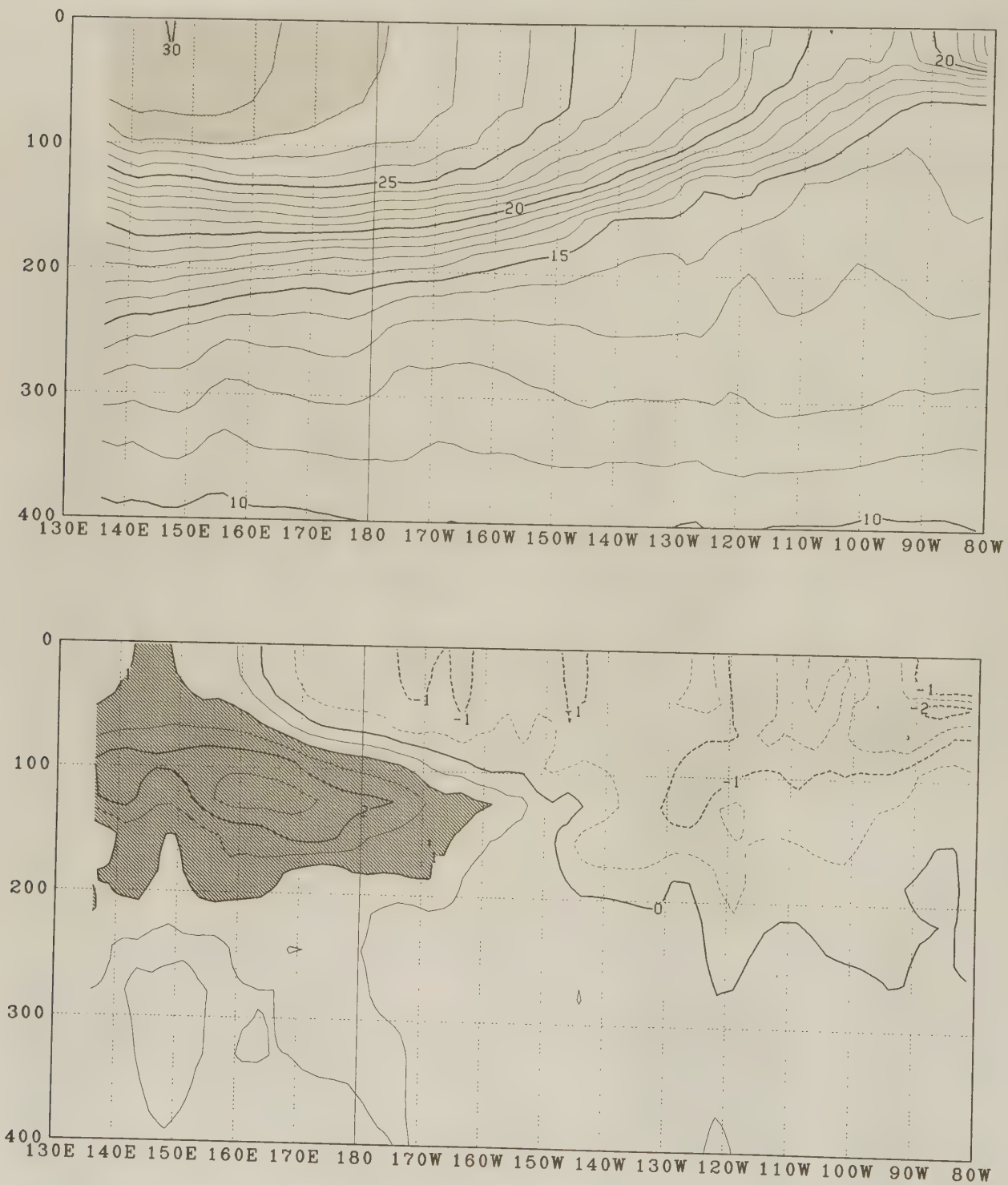
Fig.7 Subsurface (100m) temperatures in the Pacific Ocean for SEP 1996.
Contour interval is 1°C. Observation points are denoted by dots.



第8図　太平洋20℃深度図（上）及び偏差図（下）（1996年 9月）

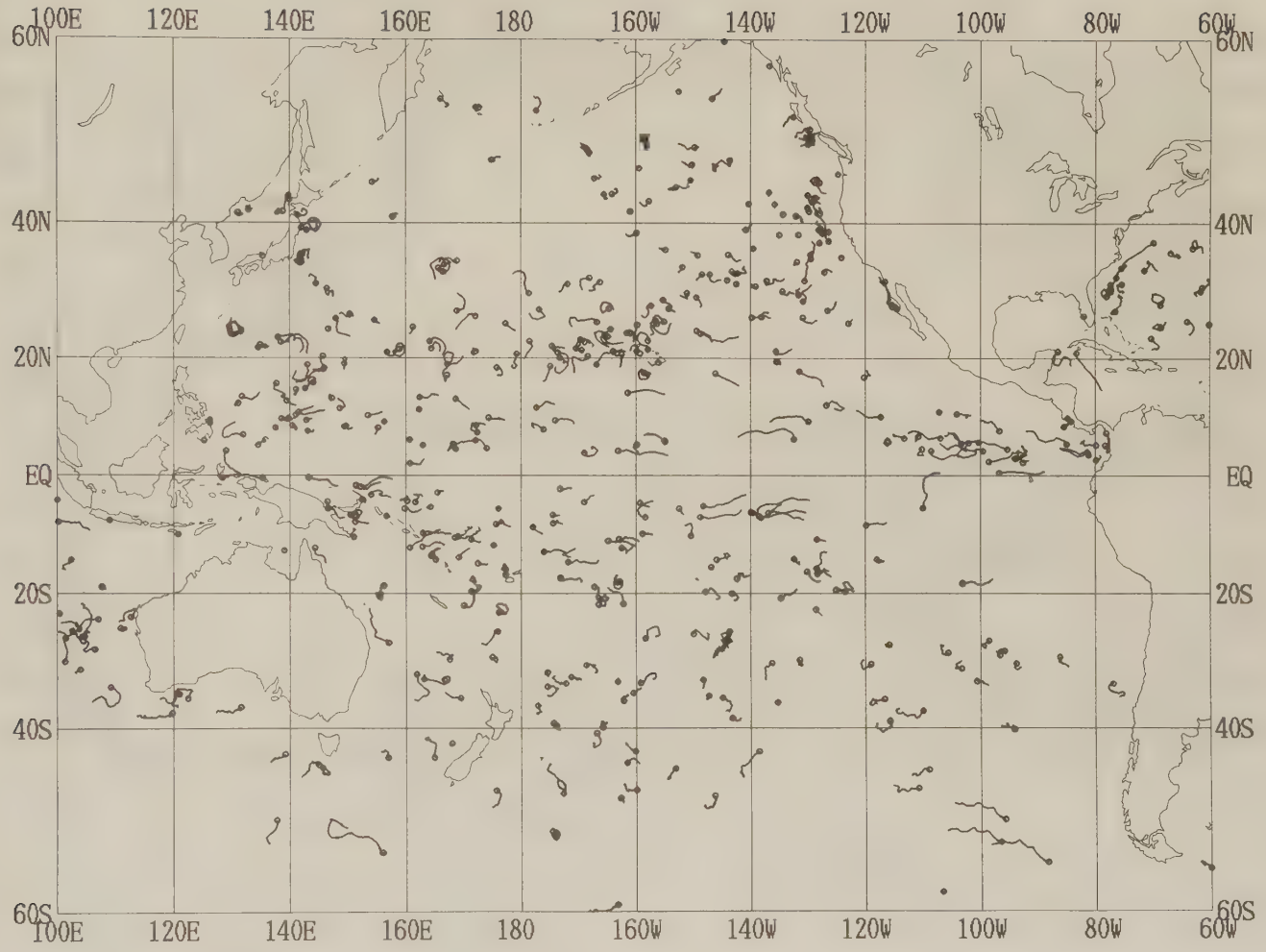
Fig.8 Depth of the 20°C isotherm in the Pacific Ocean (top) and anomalies (bottom) for SEP 1996. Anomalies are computed from the climatology (Levitus, 1982, Climatological Atlas of the World Ocean, NOAA). Contour interval is 20m. Values greater than 160m in top panel are shaded. In bottom panel values greater than +40m are shaded and values less than -40m are spotted.

Depth-Longitude Sections of Equatorial Temperature & Anomalies



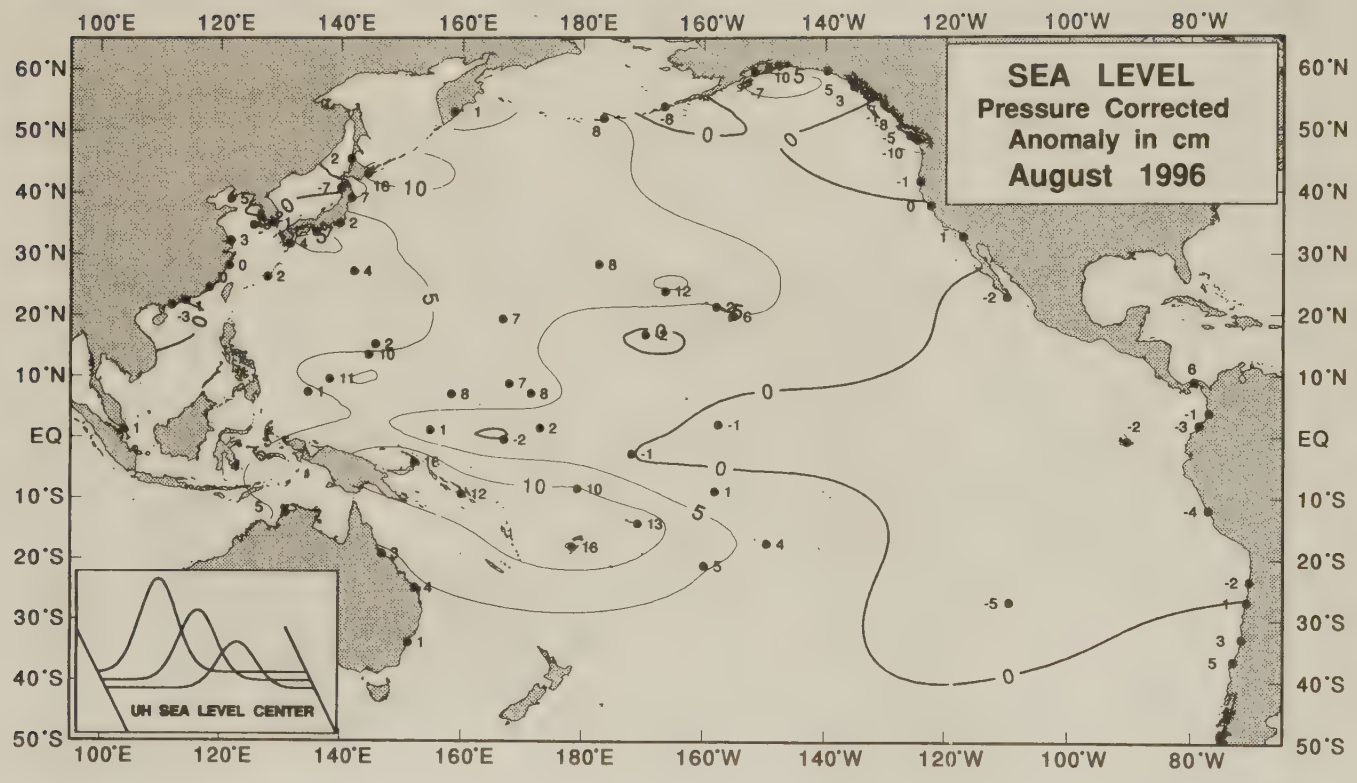
第9図　太平洋赤道に沿う表層水温（上）及び偏差（下）の深度－経度断面図（1996年 9月）

Fig.9 Depth-longitude sections of temperature (top) and anomalies (bottom) along the equator in the Pacific Ocean for SEP 1996. Data are derived from the Ocean Data Assimilation System of JMA. Contour interval is 1°C (top) and 0.5°C (bottom). Values greater than 28°C in top panel are shaded. In bottom panel values greater than 1°C are shaded and values less than -1°C are spotted. Anomalies are computed from 1987-1995 base period means.



第10図　太平洋ブイ流跡図(1996年 9月)

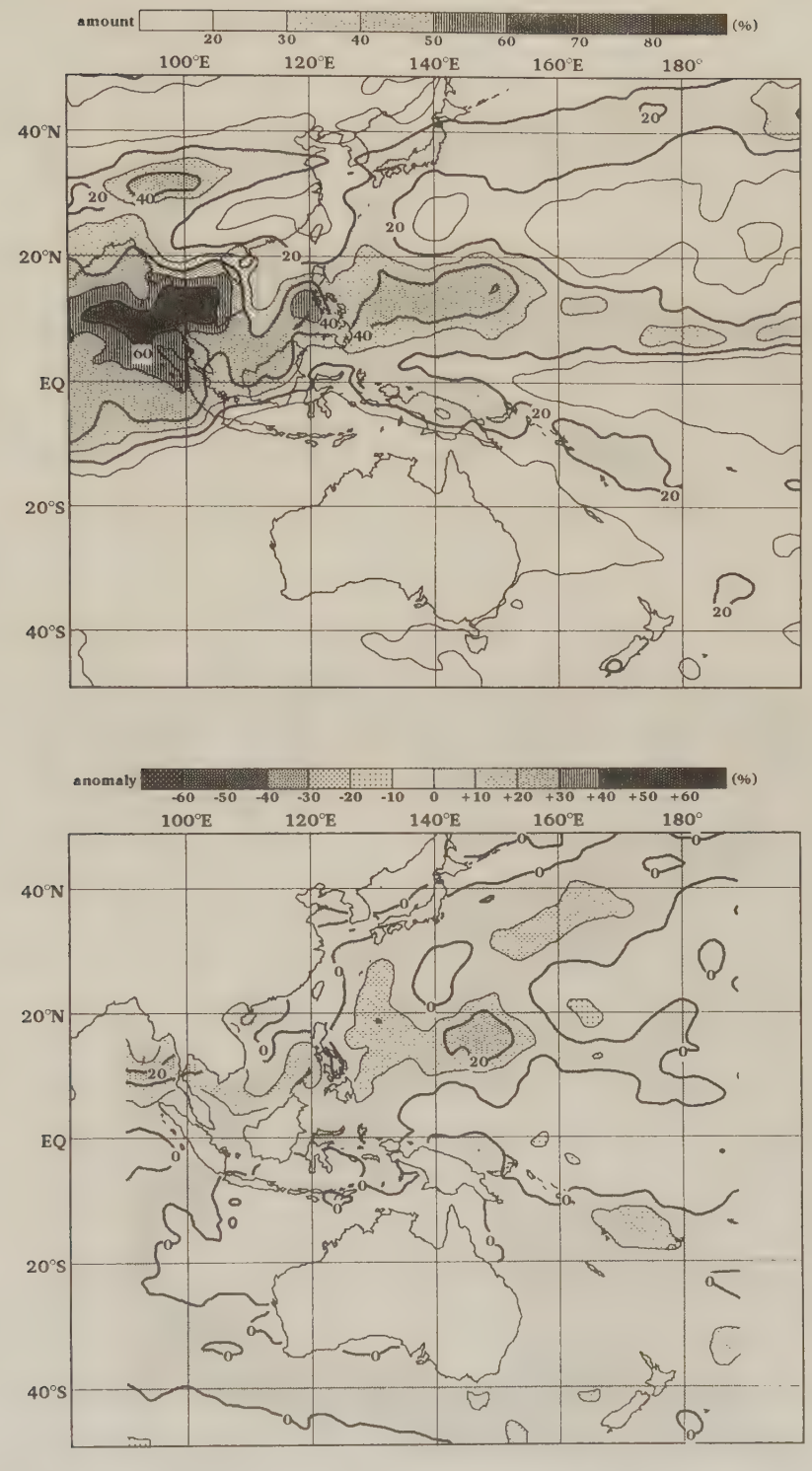
Fig.10　Movements of drifting buoys in the Pacific Ocean during SEP 1996.　Each track is for one buoy. Small circles represent last positions for the month.



第11図　太平洋海面水位偏差図（ 1996年 8月 ）

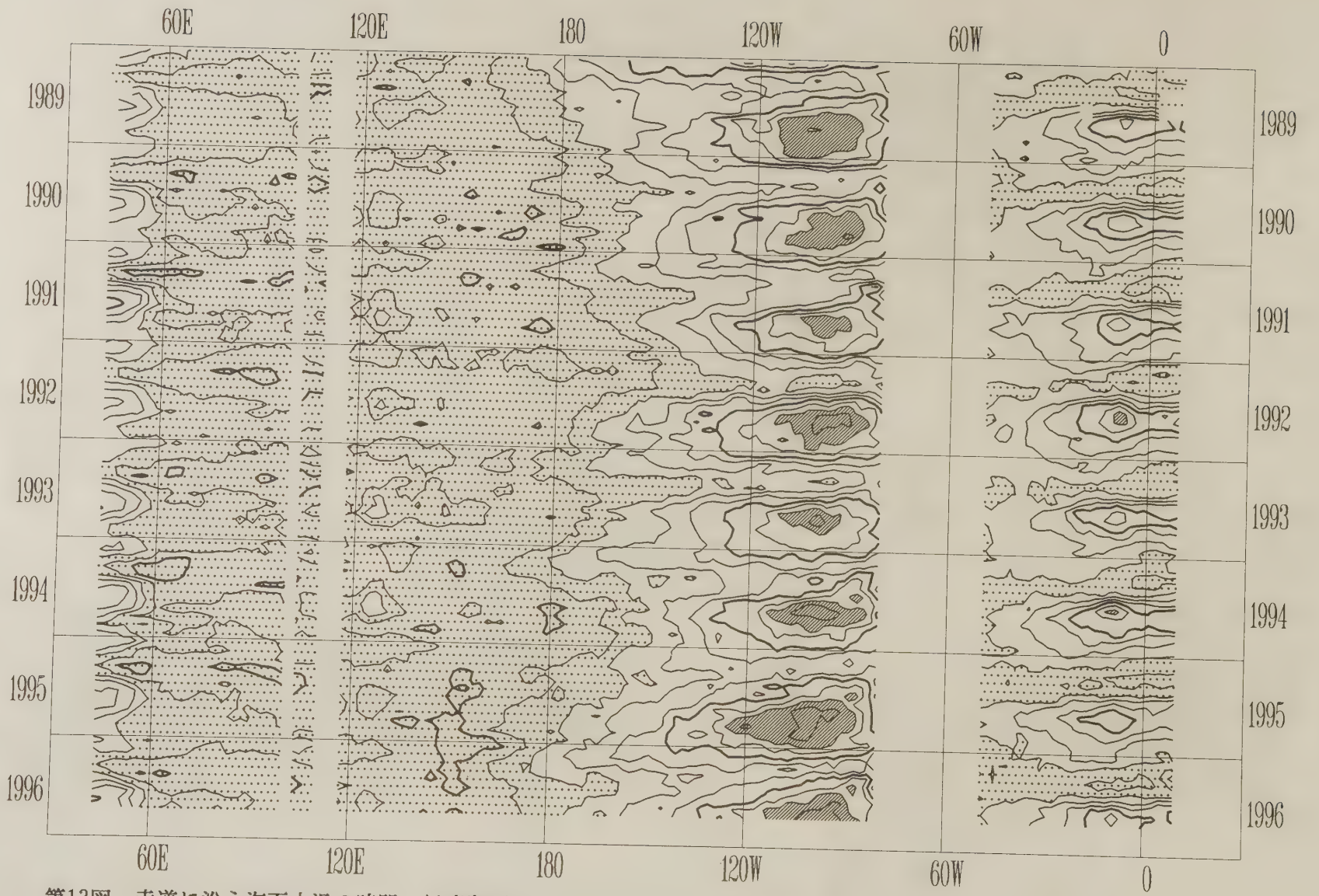
Fig.11 Monthly sea level anomalies for AUG 1996 obtained from mean sea level (1975-1986) adjusted for atmospheric pressure.
This figure is prepared by the SOC of ISLP-PAC, Dept. of Oceanography, Univ. of Hawaii.

High-Cloud Amount & Anomalies



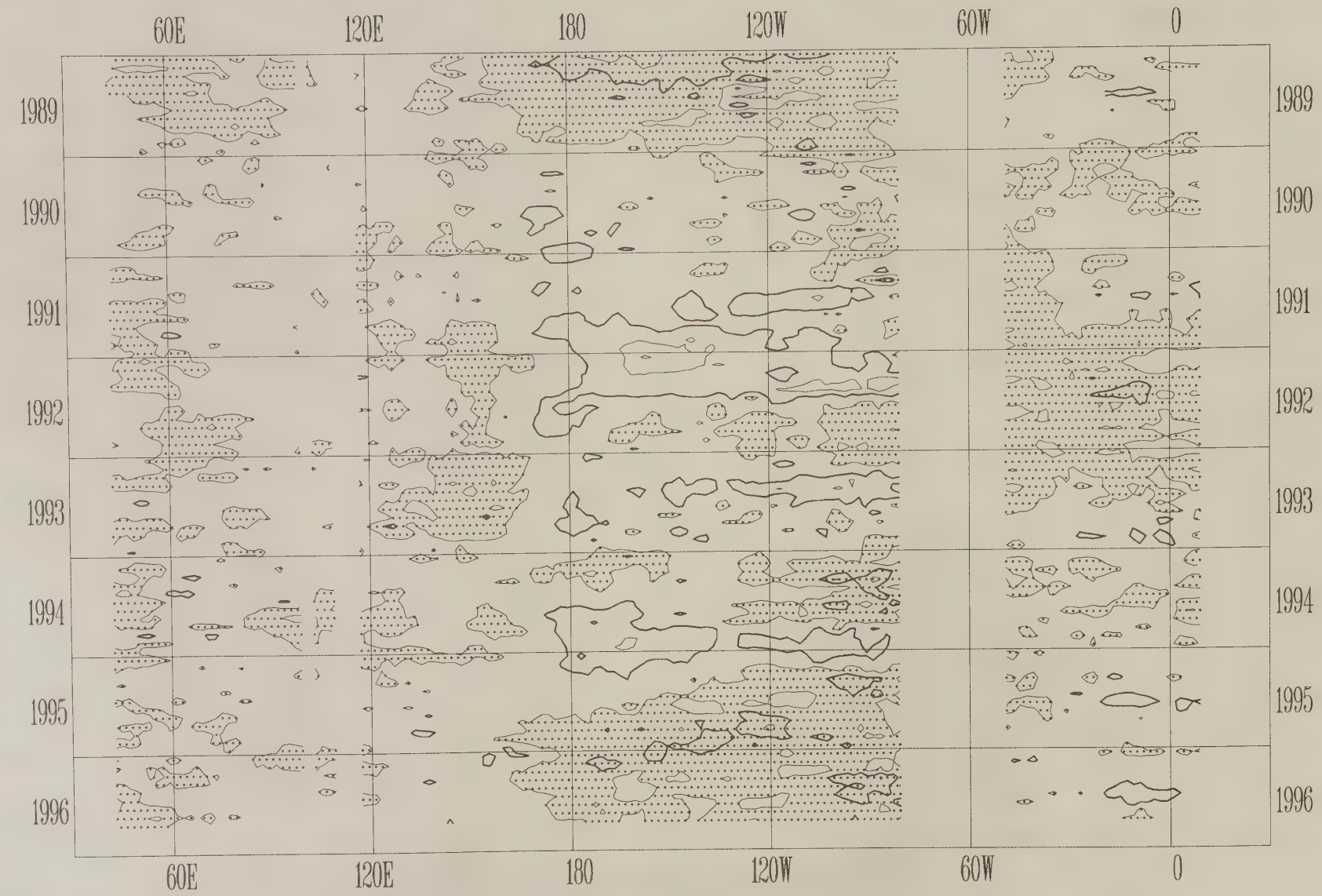
第12図　西太平洋月平均上層雲量分布図及び偏差図（1996年 9月）

Fig.12 Monthly mean of the high-cloud amount (%, top) and its anomalies (%, bottom) in the western Pacific for SEP 1996. Contour interval is 10%. Anomalies are computed from 1978-1990 base period means.



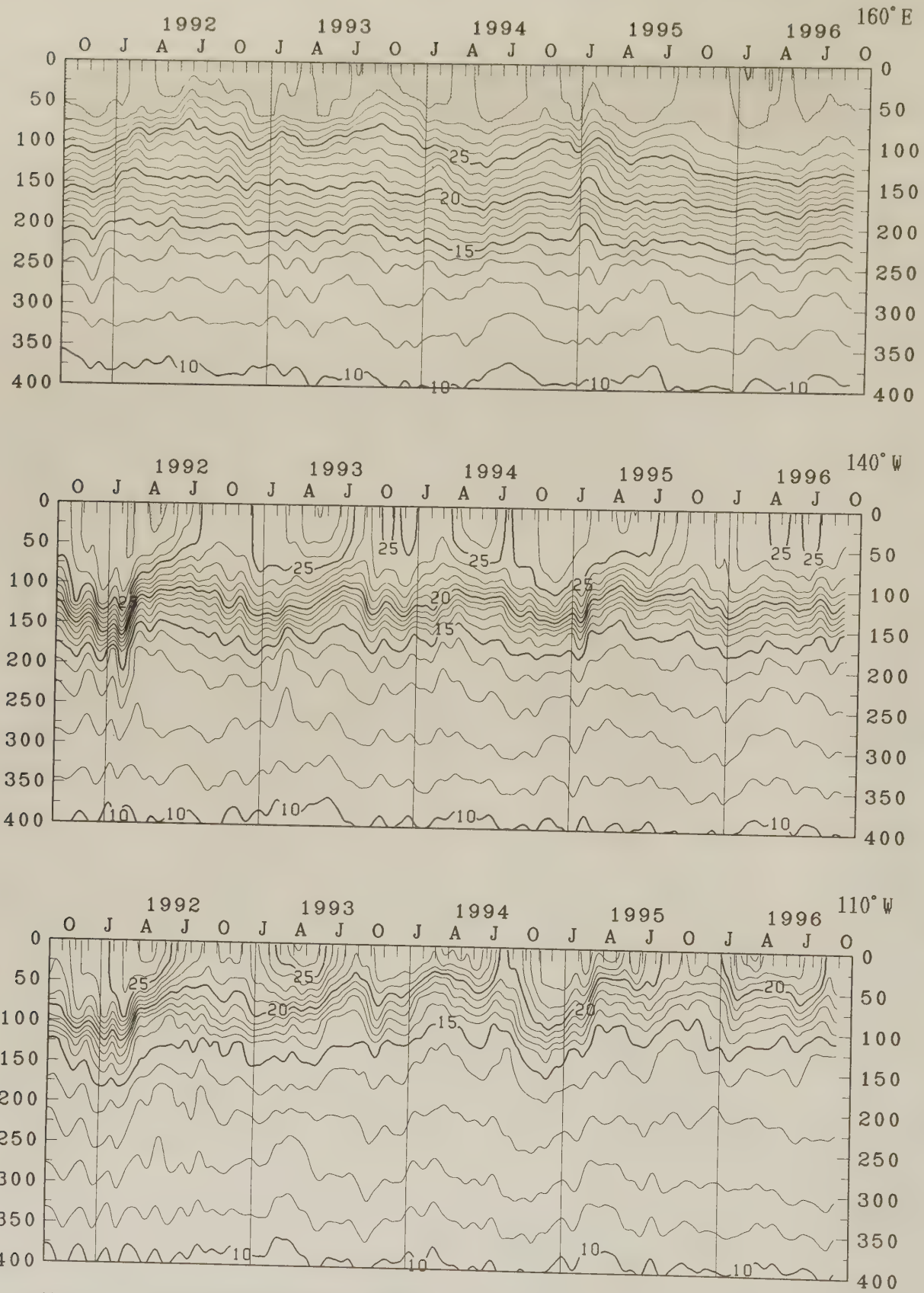
第13図　赤道に沿う海面水温の時間－経度断面図

Fig.13 Time-longitude section of SSTs along the equator (2°N-2°S) in the global ocean. Contour interval is 1°C, with thick contour lines at 25 and 30°C. SST values greater than 28°C are spotted and values less than 23°C are shaded.



第14図　赤道に沿う海面水温偏差の時間－経度断面図

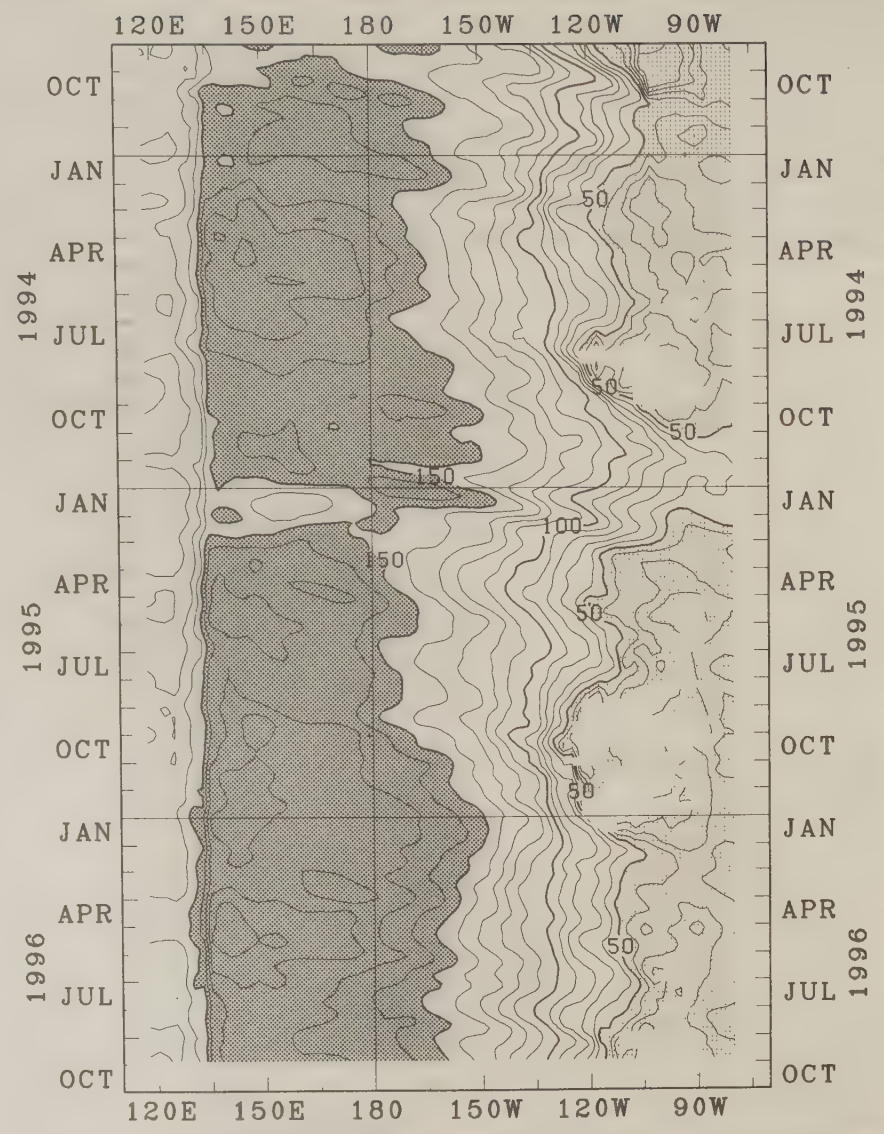
Fig.14 Time-longitude section of SST anomalies along the equator (2°N-2°S) computed from the JMA climatology (1961-1990). Contour interval is 1°C, with thick contour lines at +1°C and -1°C. Negative anomalies are spotted.

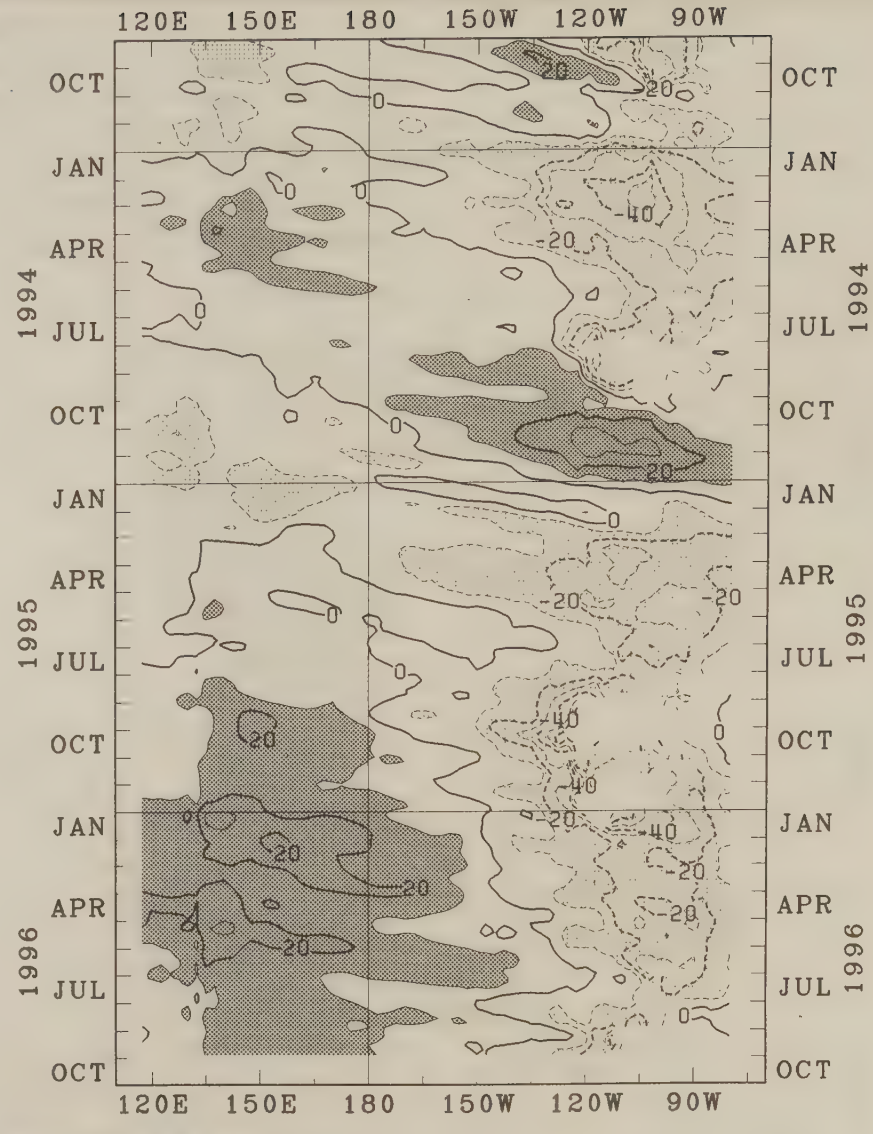


第15図　太平洋赤道域の表層水温の時間－深度断面図

（上：西部、中：中部、下：東部）

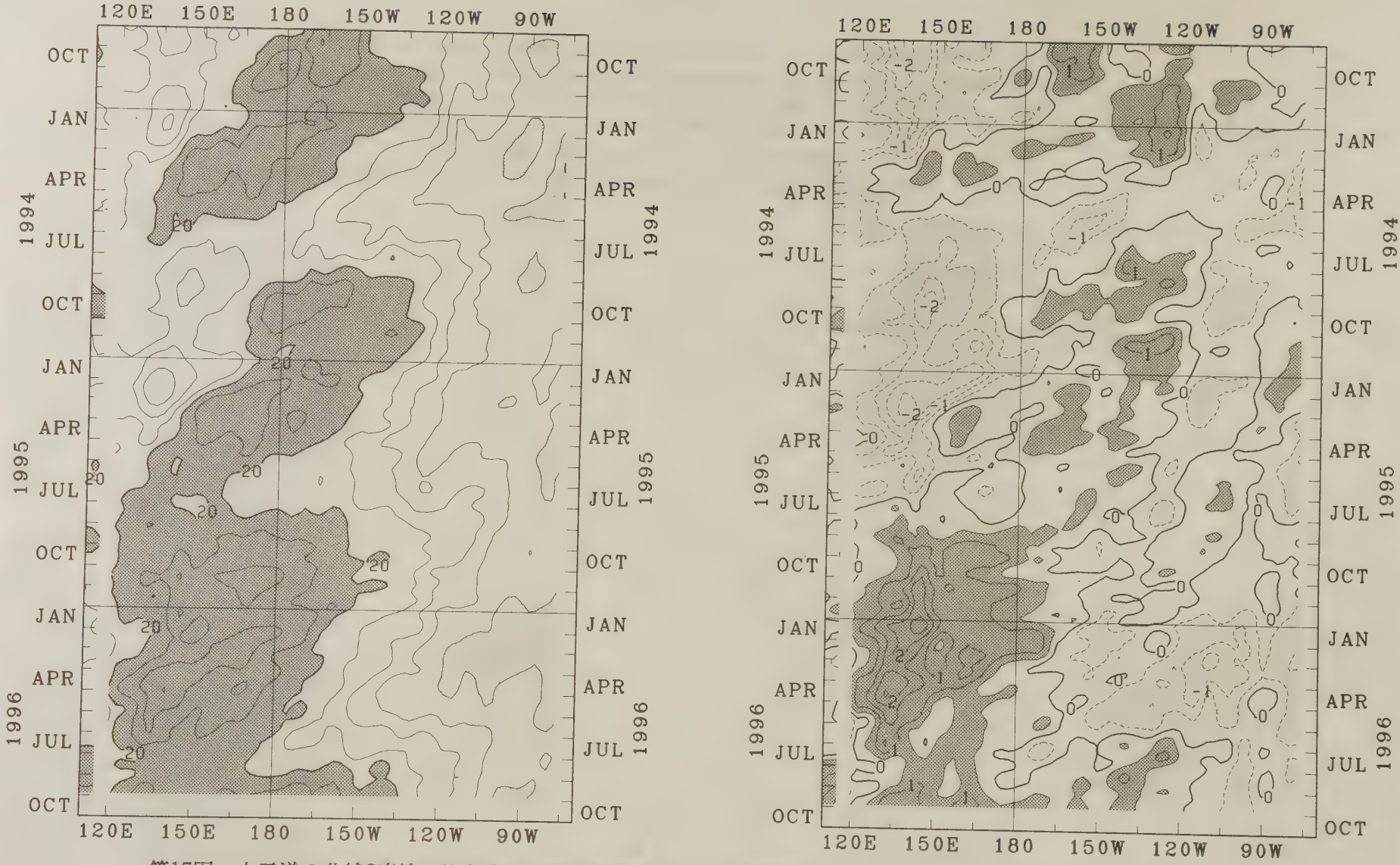
Fig.15 Time-depth sections of equatorial subsurface temperature for the western Pacific (top, 160°E), the central Pacific (middle, 140°W) and the eastern Pacific (bottom, 110°W). Data are derived from the Ocean Data Assimilation System of JMA. Contour interval is 1°C. Values greater than 28°C are shaded.





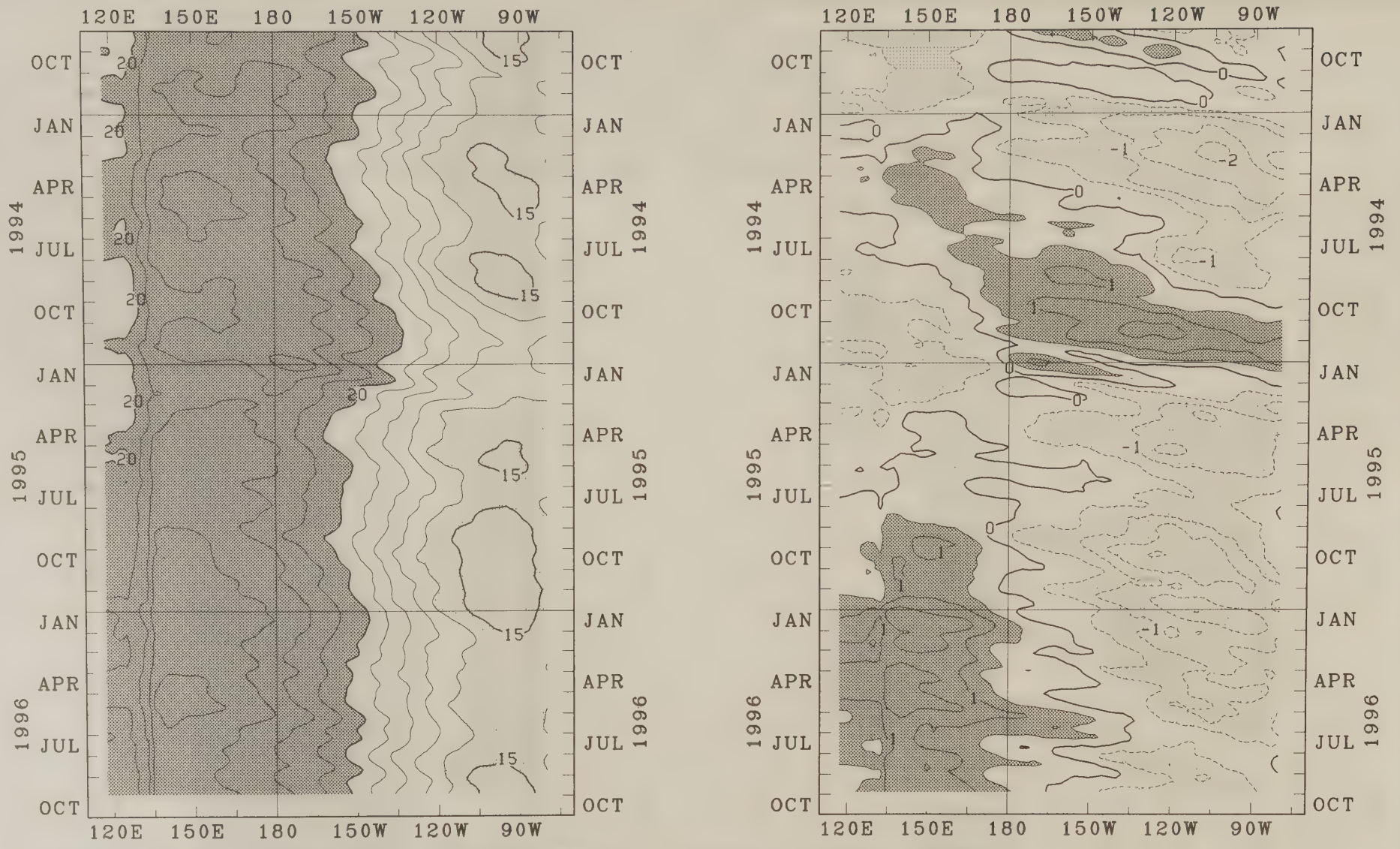
第16図　太平洋の赤道に沿う20℃深度（左）及び偏差（右）の時間－経度断面図

Fig.16 Time-longitude sections of depth of the 20°C isotherm along the equator (left) and anomalies (right) in the Pacific Ocean. Data are derived from the Ocean Data Assimilation System of JMA. Contour interval is 10m. Values in left panel greater than 150m are shaded and values less than 50m are spotted. Dashed contours in right panel indicate negative anomalies. Anomalies are computed from 1987-1995 base period means.



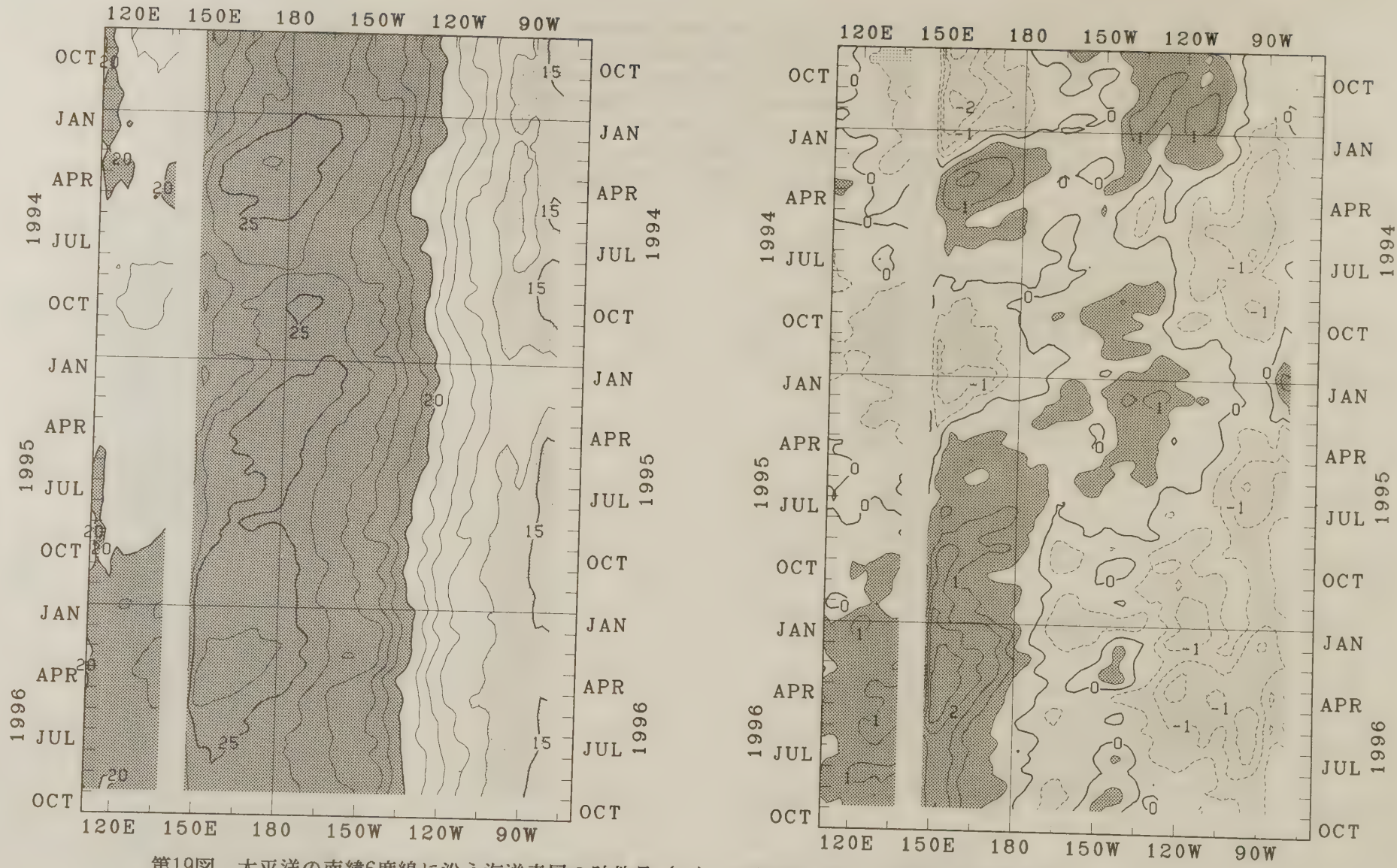
第17図　太平洋の北緯6度線に沿う海洋表層の貯熱量（左）及び偏差（右）の時間－経度断面図

Fig.17 Time-longitude sections of ocean heat content in the upper 260m along 6°N (left) and anomalies (right) in the Pacific Ocean. Data are derived from an Ocean Data Assimilation System of JMA. Contour interval is 1°C (left) and 0.5°C (right). Values in the left panel greater than 20°C are shaded and values less than 16°C are spotted. Dashed contours in right panel indicate negative anomalies. Anomalies are computed from 1987-1995 base period means.



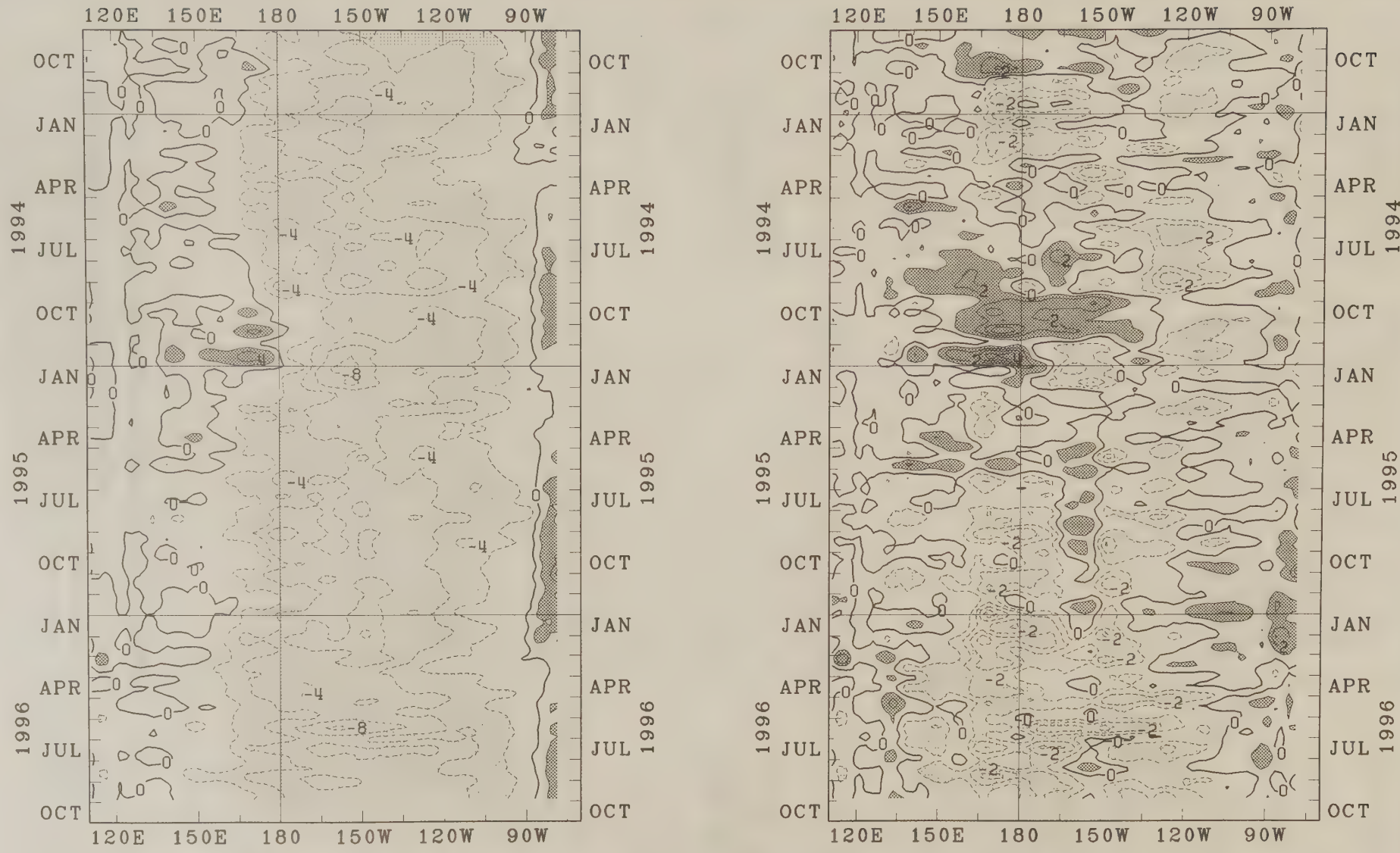
第18図　太平洋の赤道に沿う海洋表層の貯熱量（左）及び偏差（右）の時間－経度断面図

Fig.18 Time-longitude sections of ocean heat content in the upper 260m along the equator (left) and anomalies (right) in the Pacific Ocean. Data are derived from the Ocean Data Assimilation System of JMA. Contour interval is 1°C (left) and 0.5°C (right). Values in the left panel greater than 20°C are shaded and values less than 16°C are spotted. Dashed contours in right panel indicate negative anomalies. Anomalies are computed from 1987-1995 base period means.



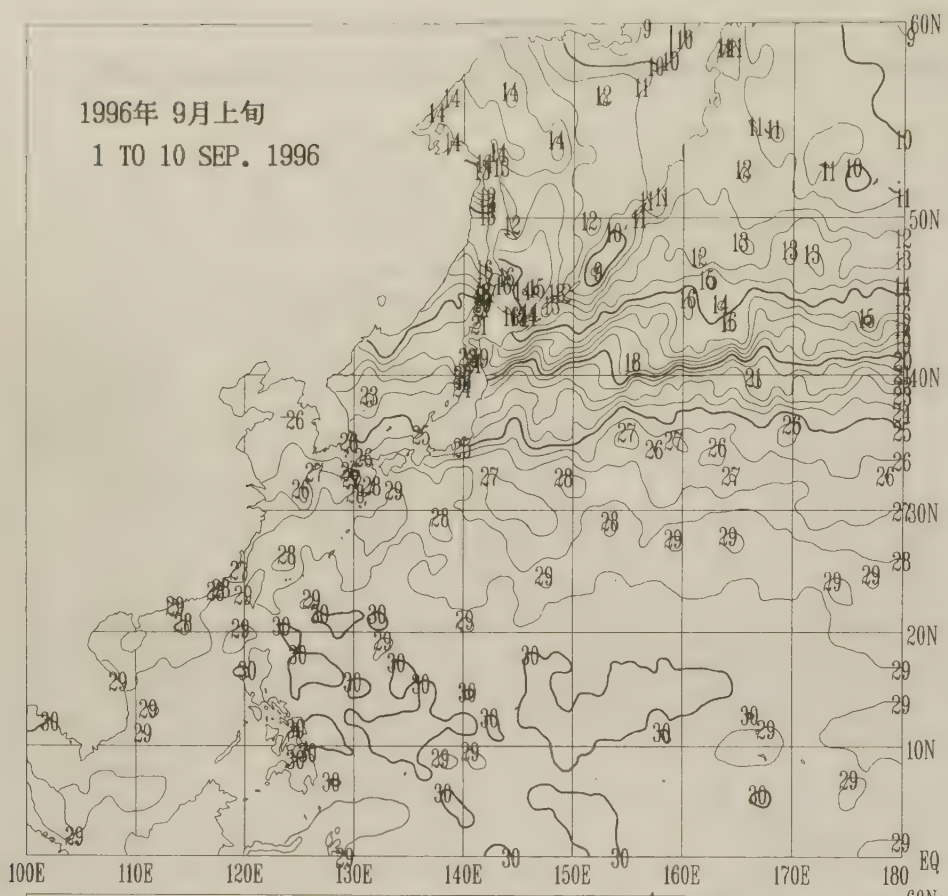
第19図　太平洋の南緯6度線に沿う海洋表層の貯熱量（左）及び偏差（右）の時間－経度断面図

Fig.19 Time-longitude sections of ocean heat content in the upper 260m along 6°S (left) and anomalies (right) in the Pacific Ocean. Data are derived from the Ocean Data Assimilation System of JMA. Contour interval is 1°C (left) and 0.5°C (right) Values in the left panel greater than 20°C are shaded and values less than 16°C are spotted. Dashed contours in right panel indicate negative anomalies. Anomalies are computed from 1987-1995 base period means.



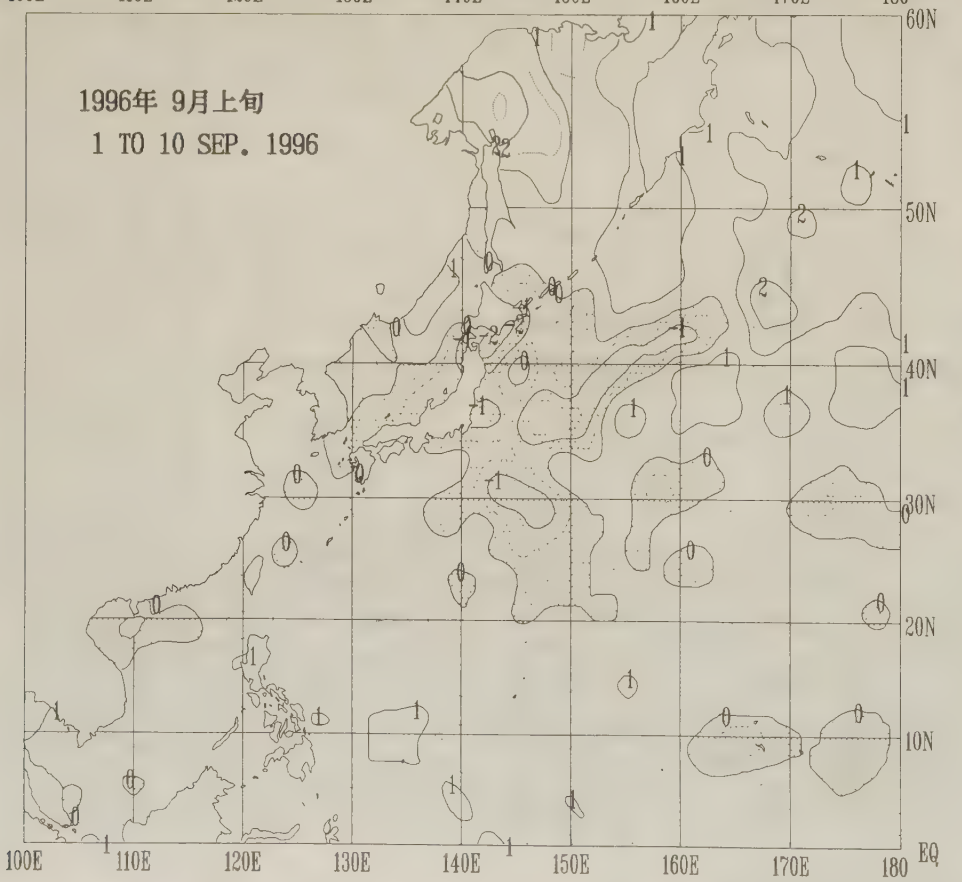
第20図　太平洋の赤道に沿う海面の風応力の東西成分（左）及び偏差（右）の時間－経度断面図

Fig.20 Time-longitude sections of surface zonal wind stress along the equator (left) and anomalies (right) in the Pacific Ocean. Data are derived from the Atmospheric Global Data Assimilation System of JMA. Contour interval is 0.02N/m2 (left) and 0.01N/m2 (right). Dashed contours indicate easterlies (left) and easterly anomalies (right). Anomalies are computed from 1987-1995 base period means.



旬平均沿岸水温(℃)
Coastal Water Temperature

地点名 (Index Number)	水温 Temp.	偏差 Anom.
石　垣(47918)	28.3	-0.5
御前崎(47655)	25.4	-0.4
八丈島(47678)	27.1	0.2
小名浜(47598)	21.2	-1.1
宮　古(47585)	19.5	-0.5
江　差(47428)	22.4	-
浜　田(47755)	25.8	-

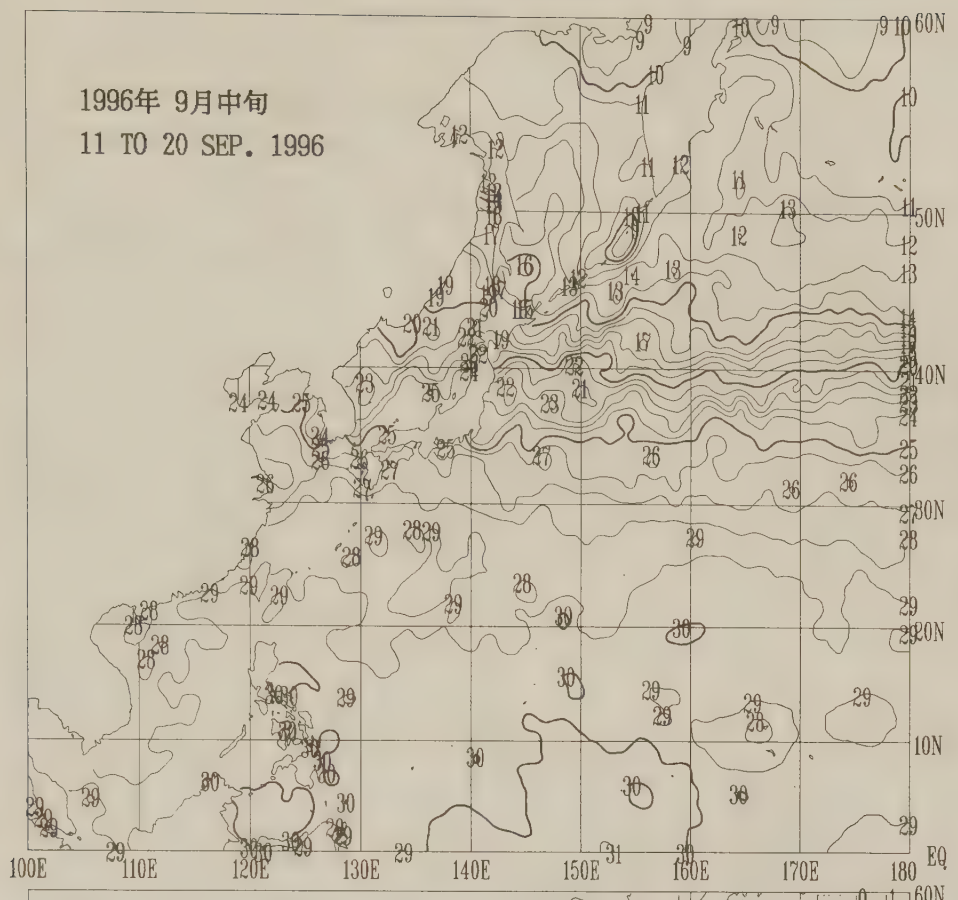


海洋気象ブイロボット
旬平均海面水温(℃)
Ocean Data Buoy SST

日本海	37.9N,134.5E	24.7
四国沖	29.0N,135.0E	28.8
東シナ海	28.2N,126.3E	28.3

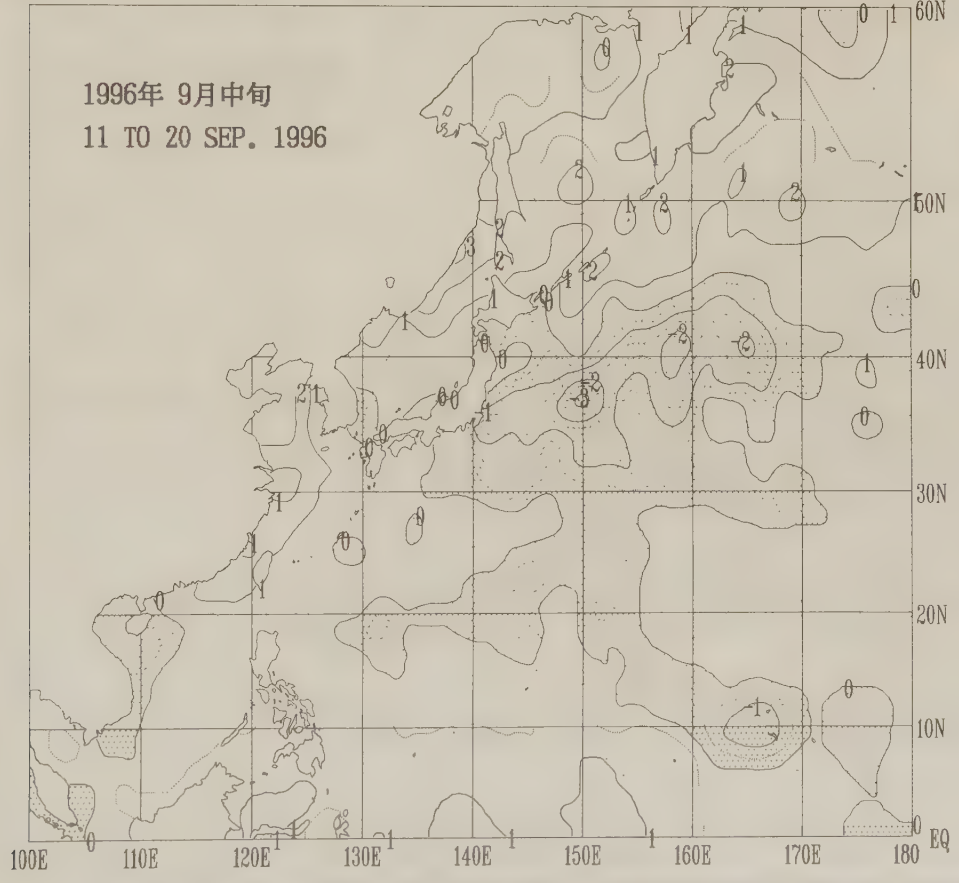
第21図 北西太平洋旬平均海面水温図(上)及び偏差図(下)(1996年 9月上旬)

Fig.21 Ten-day mean SSTs in the western North Pacific (top) and anomalies (bottom) for the 1st ten-day period in SEP 1996. Anomalies are computed from the JMA climatology (1961-90). Contour interval is 1°C and additional anomaly contours of 0.5°C are shown as broken lines. Negative anomalies are spotted.



旬平均沿岸水温(℃)
Coastal Water Temperature

地点名 (Index Number)	水温 Temp.	偏差 Anom.
石　垣(47918)	28.4	0.0
御前崎(47655)	24.2	-0.5
八丈島(47678)	26.3	-0.2
小名浜(47598)	21.9	0.0
宮　古(47585)	18.2	-1.8
江　差(47428)	22.7	-
浜　田(47755)	25.3	-

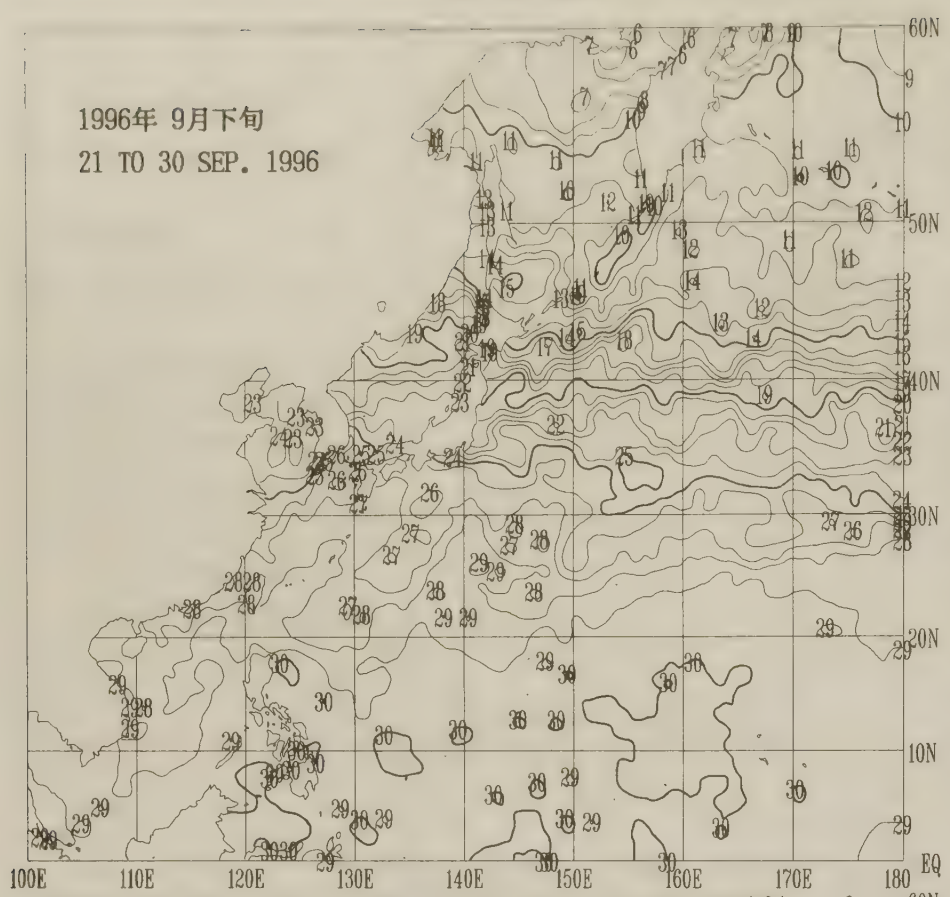


海洋気象ブイロボット
旬平均海面水温(℃)
Ocean Data Buoy SST

日本海	37.9N,134.5E	24.3
四国沖	29.0N,135.0E	28.6
東シナ海	28.2N,126.3E	28.3

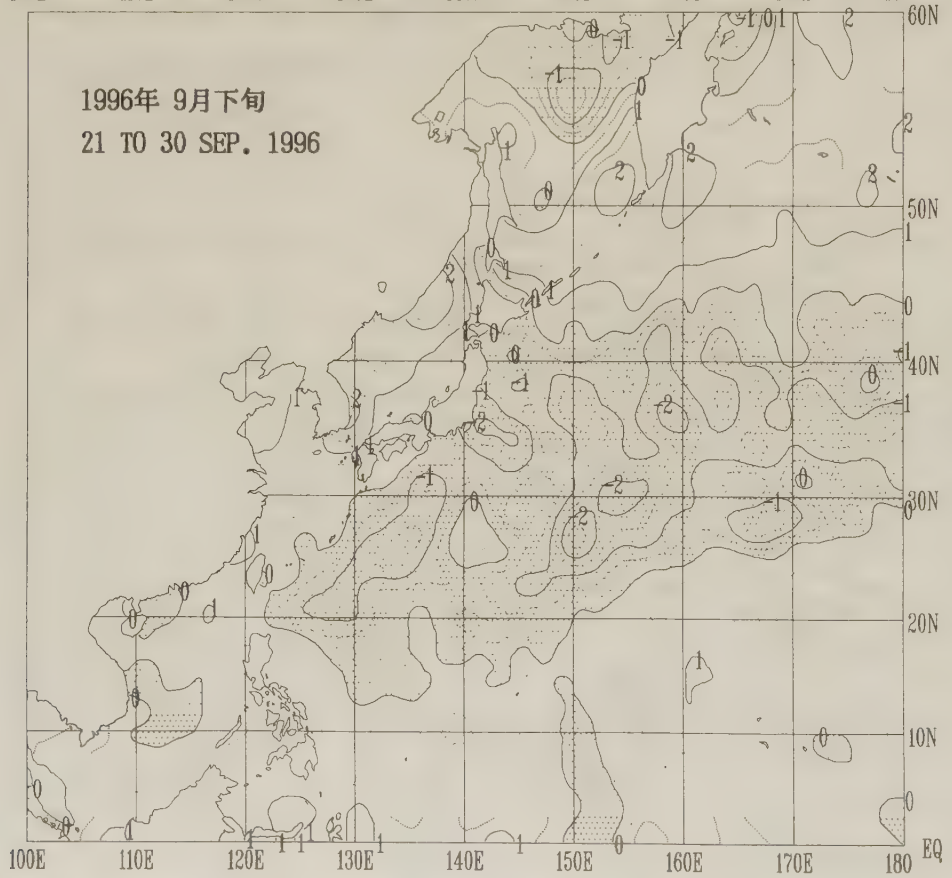
第22図 北西太平洋旬平均海面水温図(上)及び偏差図(下)(1996年 9月中旬)

Fig.22 Ten-day mean SSTs in the western North Pacific (top) and anomalies (bottom) for the 2nd ten-day period in SEP 1996. Anomalies are computed from the JMA climatology (1961-90). Contour interval is 1°C and additional anomaly contours of 0.5°C are shown as broken lines. Negative anomalies are spotted.



旬平均沿岸水温(℃)
Coastal Water Temperature

地点名 (Index Number)	水温 Temp.	偏差 Anom.
石　垣(47918)	27.5	-0.4
御前崎(47655)	23.6	0.1
八丈島(47678)	25.9	0.0
小名浜(47598)	20.9	-0.6
宮　古(47585)	18.6	-1.0
江　差(47428)	21.4	-
浜　田(47755)	24.2	-

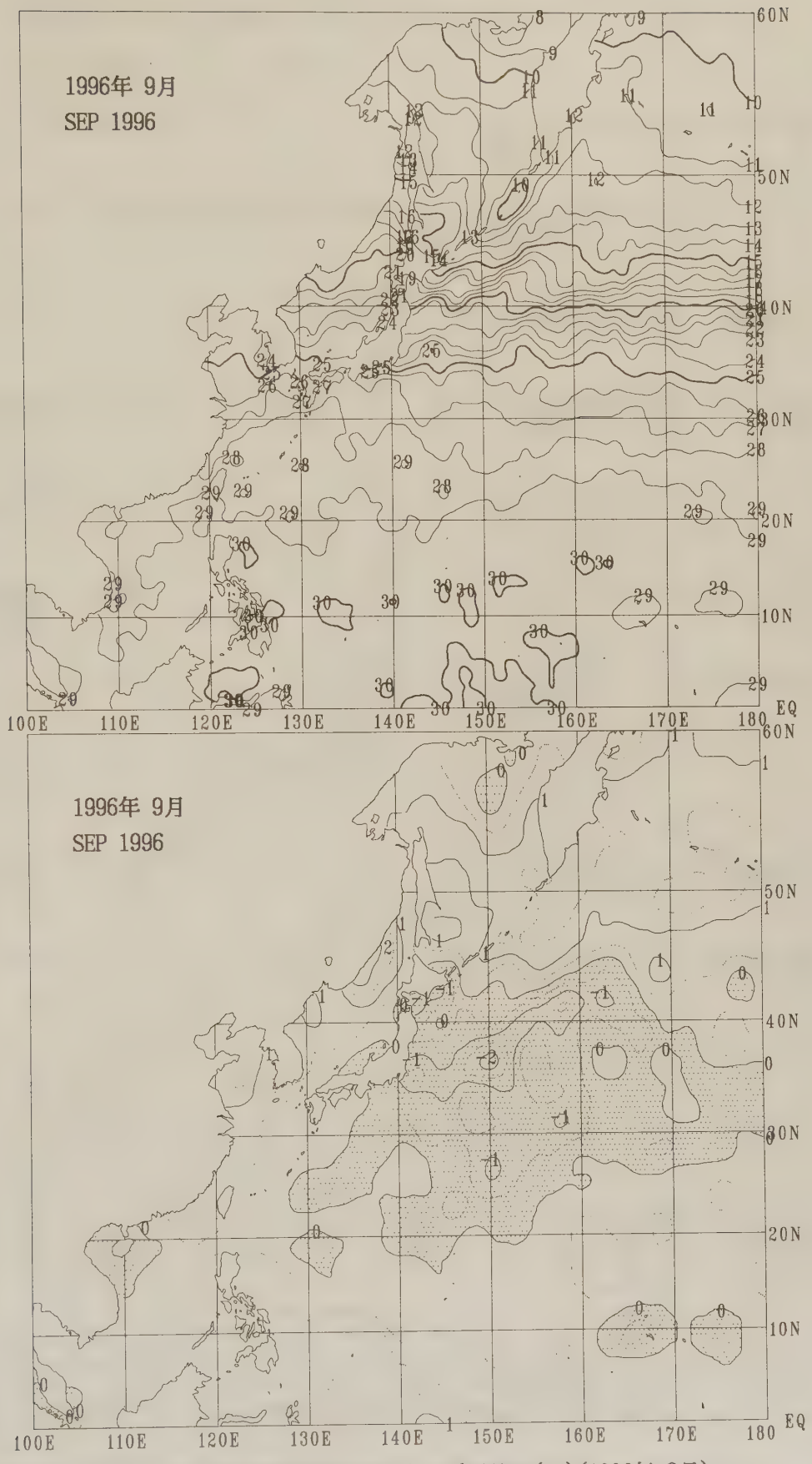


海洋気象ブイロボット
旬平均海面水温(℃)
Ocean Data Buoy SST

日本海	37.9N,134.5E	23.3
四国沖	29.0N,135.0E	26.9
東シナ海	28.2N,126.3E	27.6

第23図 北西太平洋旬平均海面水温図(上)及び偏差図(下)(1996年 9月下旬)

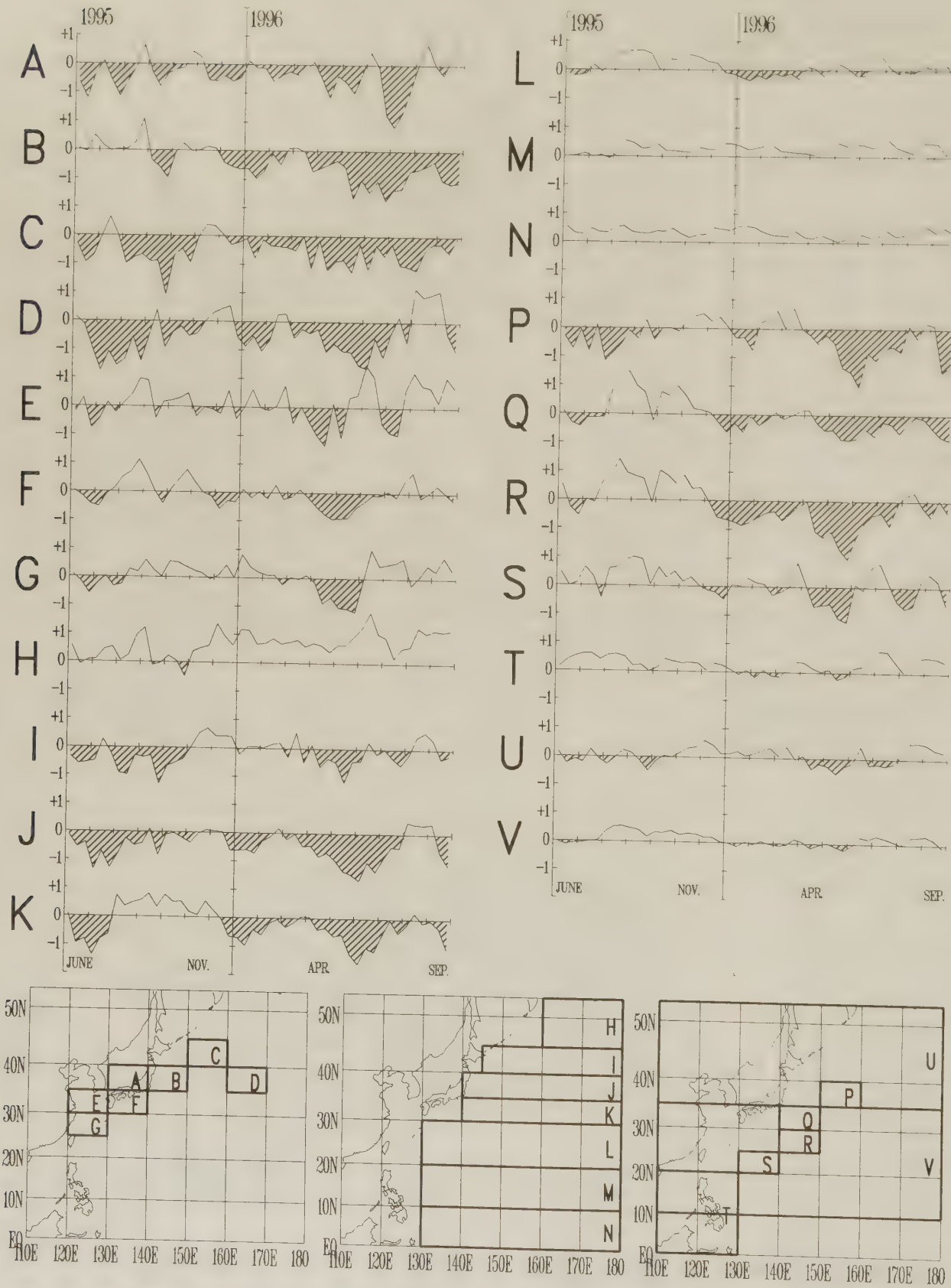
Fig.23 Ten-day mean SSTs in the western North Pacific (top) and anomalies (bottom) for the 3rd ten-day period in SEP 1996. Anomalies are computed from the JMA climatology (1961-90). Contour interval is 1°C and additional anomaly contours of 0.5°C are shown as broken lines. Negative anomalies are spotted.



第24図 北西太平洋月平均海面水温図(上)及び偏差図(下)(1996年 9月)

Fig.24 Monthly mean SSTs in the western North Pacific (top) and anomalies (bottom) for SEP 1996. Anomalies are computed from the JMA climatology (1961-1990). Contour interval is 1°C and additional anomaly contours of 0.5°C are shown as broken lines. Negative anomalies are spotted.

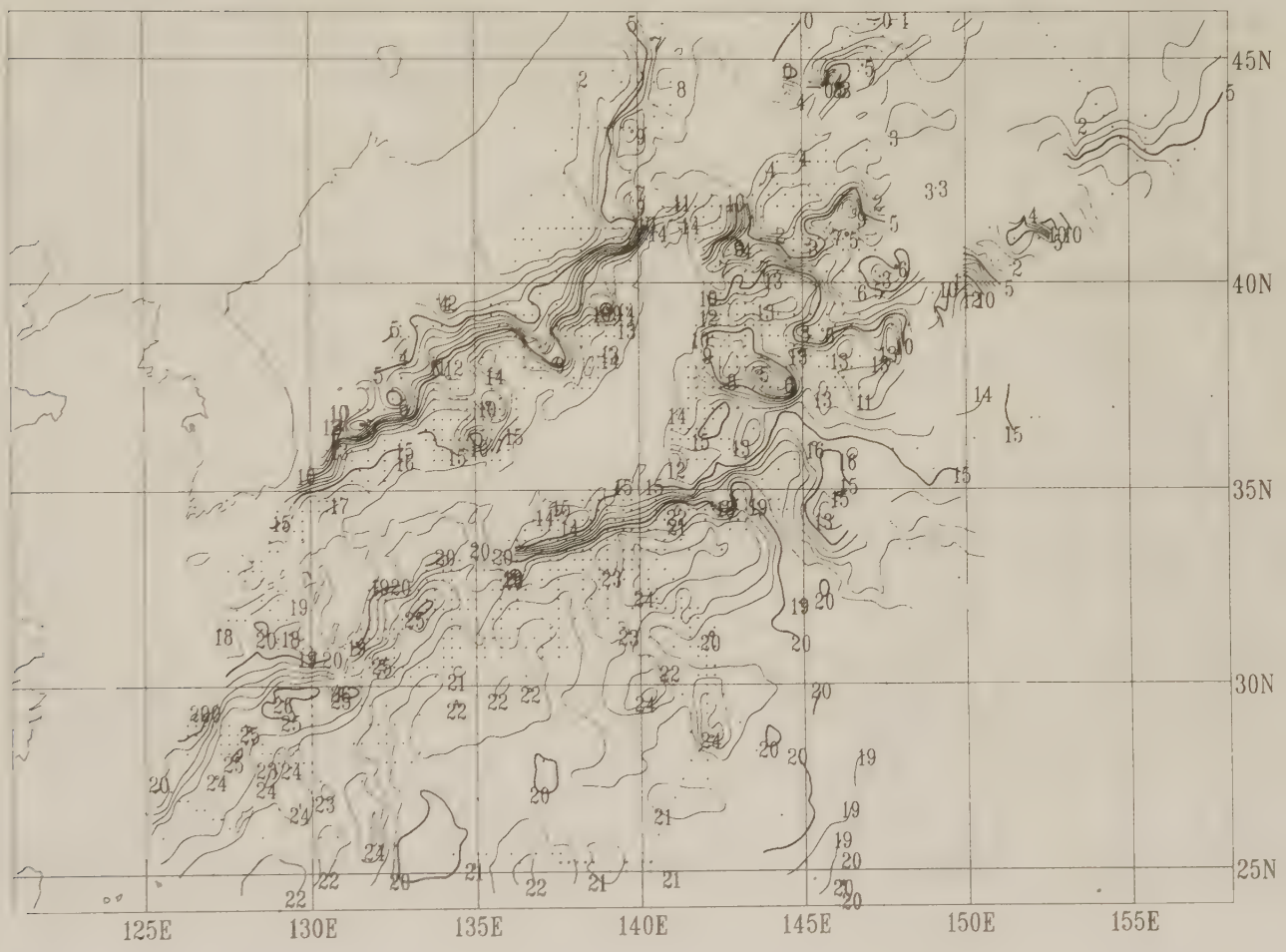
Time Series of Area Mean SST in the Western North Pacific



第25図　北西太平洋旬平均海面水温平年偏差時系列図

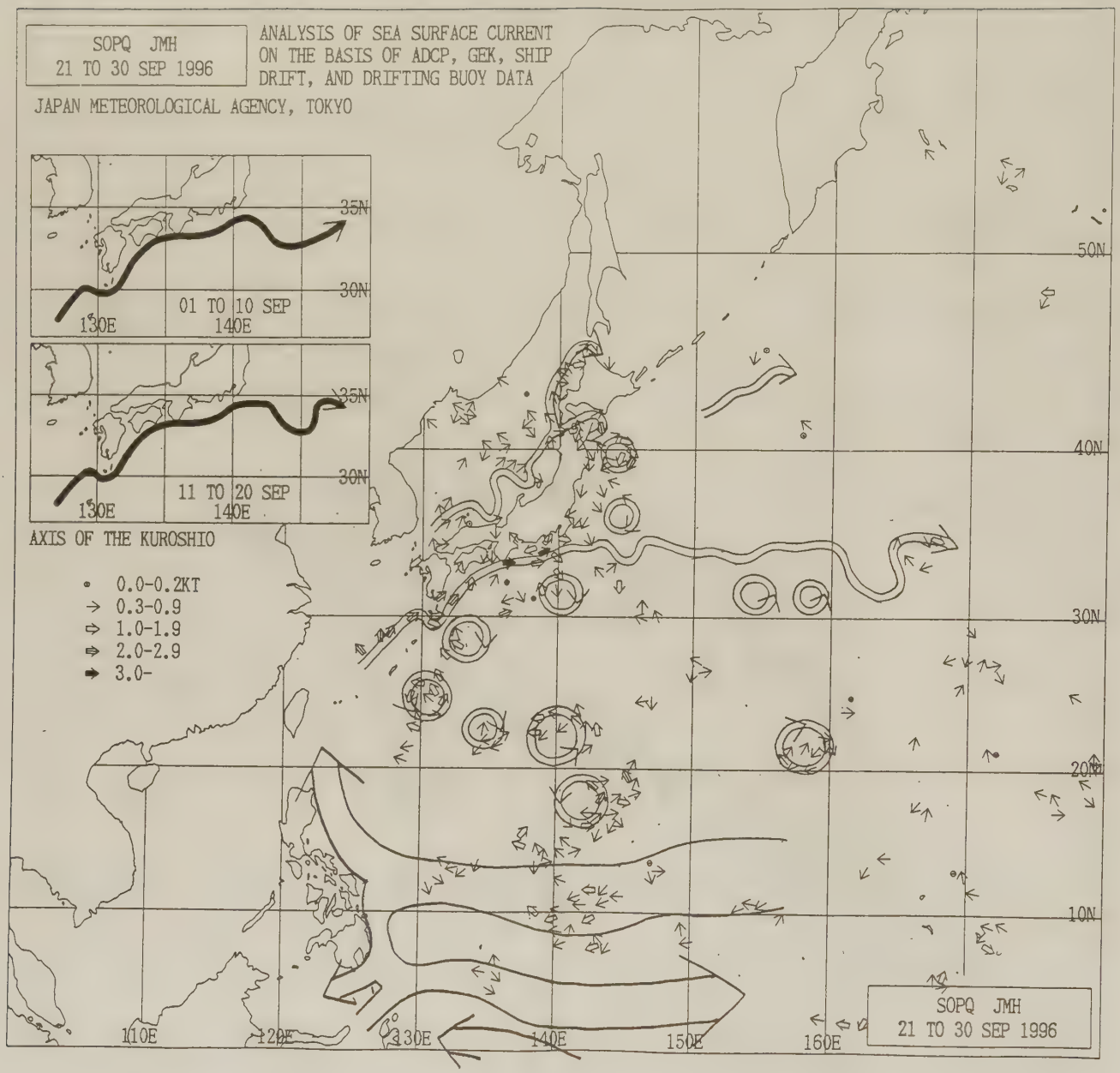
Fig.25 Time series of the ten-day mean sea surface temperature anomalies (°C) in the western North Pacific for the areas indicated at the bottom. Negative anomalies are shaded. Anomalies are computed from the JMA climatology (1961-90).

100m Temperatures in Seas Adjacent to Japan



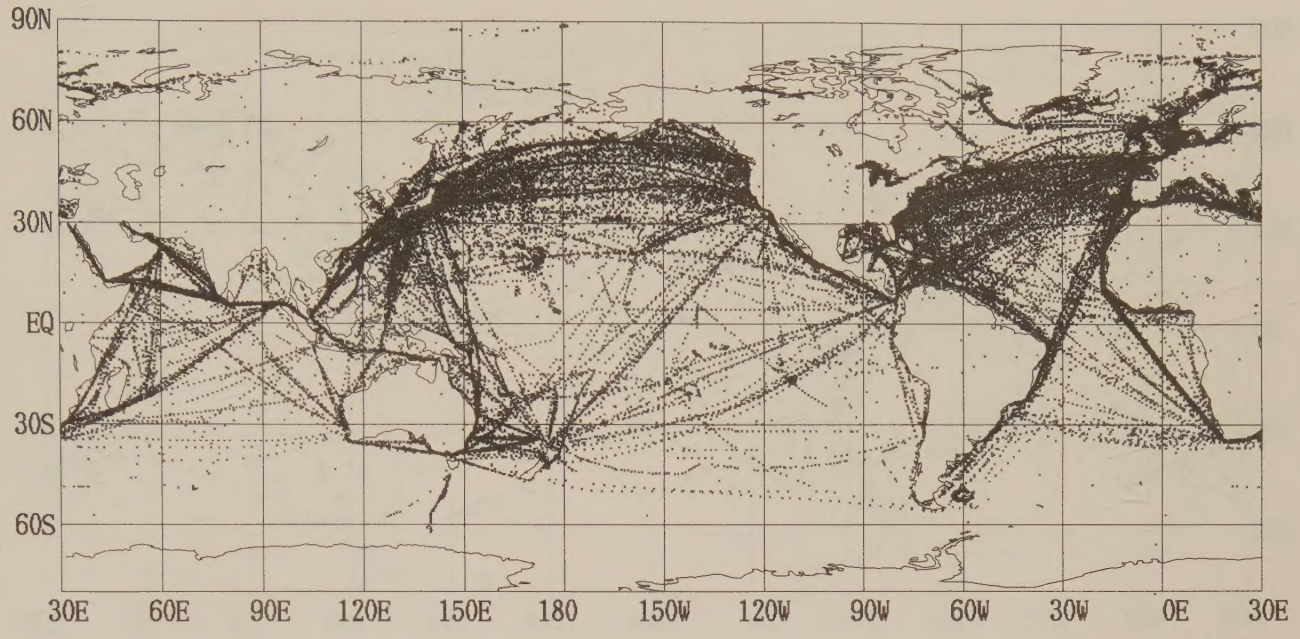
第26図　日本近海表層水温(深さ100m)図 (1996年 9月)

Fig.26 Subsurface (100m) temperatures in seas adjacent to Japan for SEP 1996. Contour interval is 1°C. Observation points are denoted by dots.

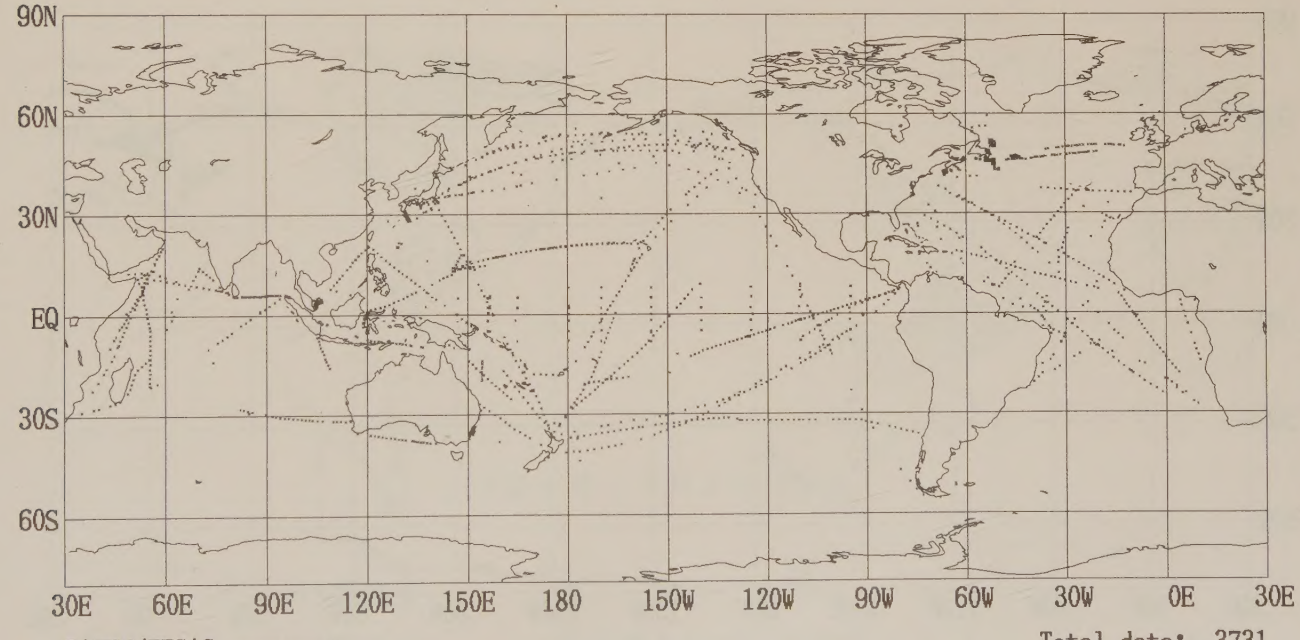


第27図　北西太平洋海流図（1996年 9月下旬）

Fig.27　Analysis of the sea surface current in the western North Pacific for the 3rd ten-day period in SEP 1996. Small arrows indicate sea surface currents measured with acoustic Doppler current profilers, GEKs deployed in research vessels, and ship drift by merchant ships/drifting buoys during the month. Major currents such as the Kuroshio and the North Equatorial Current are denoted by larger open arrows.



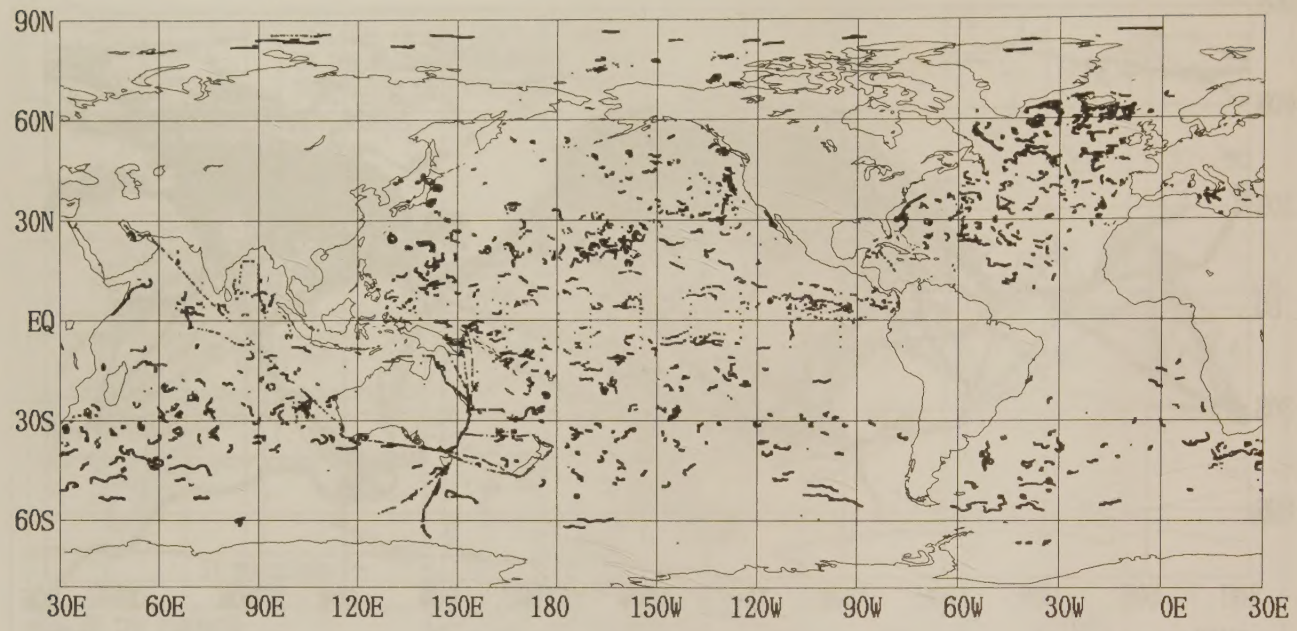
SHIP messages　　Total data:134601



BATHY/TESAC messages　　Total data:　3731

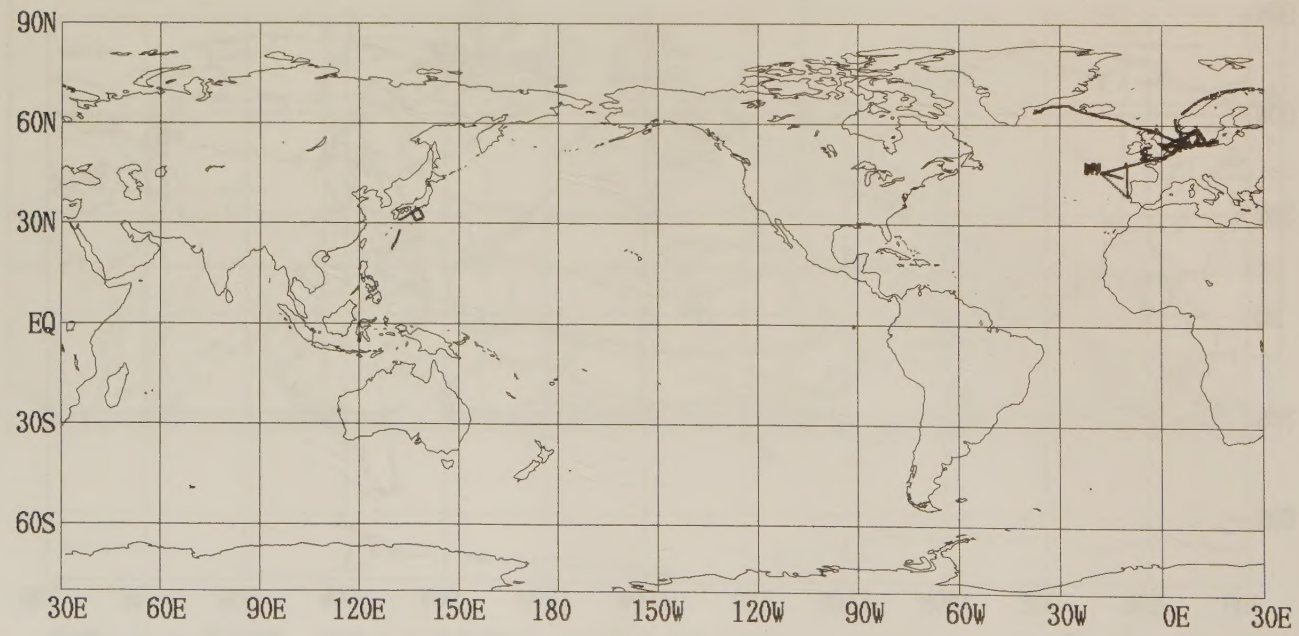
第28-1図　測点分布図(1996年 9月)

Fig.28-1　Geographical distribution of SHIP messages (SST data, top) and BATHY/TESAC messages (subsurface temperature data, bottom) for SEP 1996.



BUOY messages

Total data:186553



TRACKOB messages

Total data: 2809

第28-2図　測点分布図(1996年 9月)

Fig.28-2 Geographical distribution of BUOY messages (buoy drift and SST data, top) and TRACKOB messages (ship drift and SST data, bottom) for SEP 1996.

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